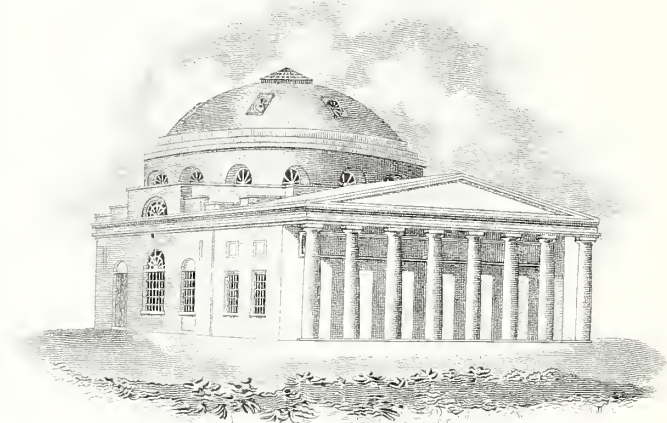
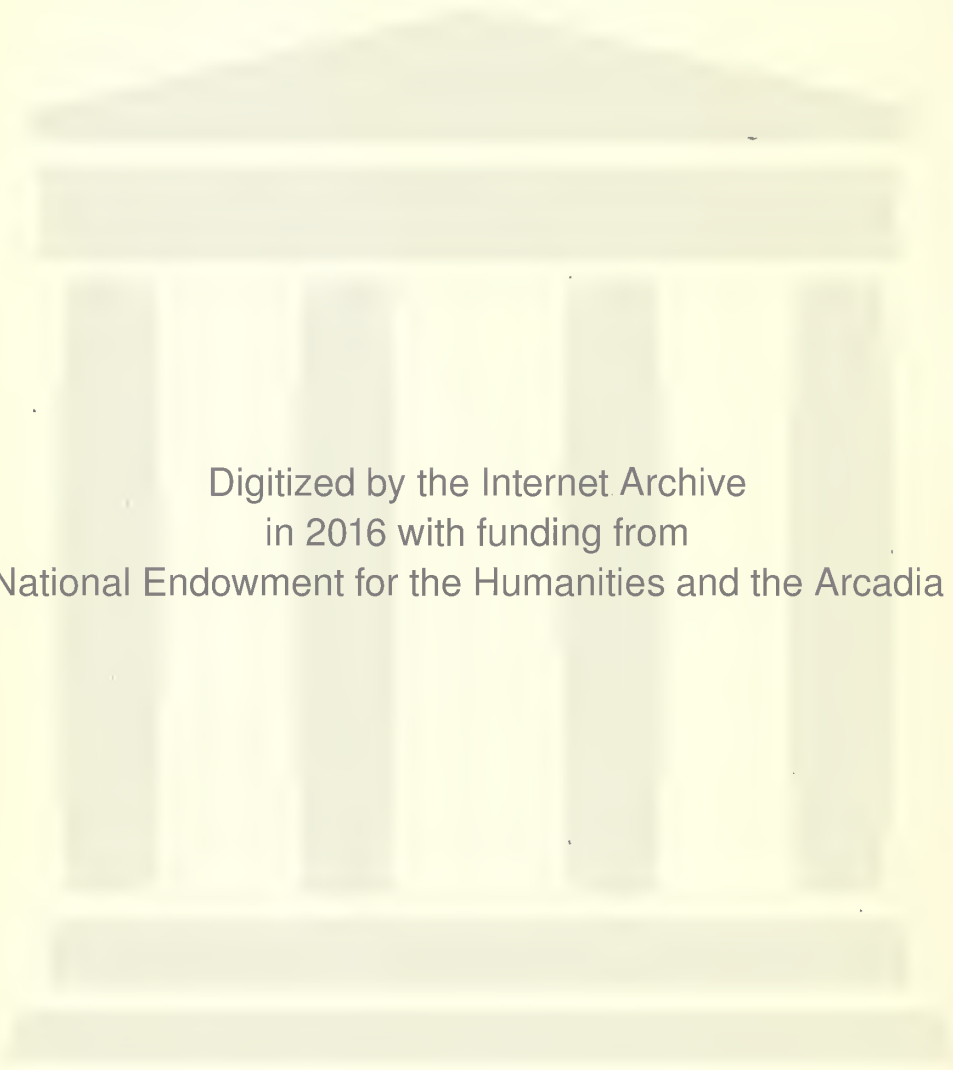


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The OHIO STATE MEDICAL JOURNAL

JANUARY, 1940

Vol. 36

Number 1

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The Ohio State Medical Journal

Vol. 36

January, 1940

No. 1

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May your New Year be brimming over with good cheer, good health and professional success. May The Ohio State Medical Journal be good enough to make some small contribution to that end.

—The Editor.

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The Ohio State Medical Journal

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Vol. 36

January, 1940

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Medical Complications of Pregnancy

W. W. HERRICK, M.D.

IN many obstetric hospitals the internist is no longer a stranger but has become a recognized and not unimportant member of the staff. His contribution toward the study and perhaps the solution of certain problems of pregnancy promises to be of increasing value. After all, obstetrics is not exclusively a surgical problem. Its medical phases are numerous and involve some of the most important pathological conditions with which the medical man has to deal, not alone from the standpoint of individual therapy but also from that of clinical research. Pregnancy is not a disease; rather it is the supreme physiological function. Its demands upon the maternal organism, however, tend to call out latent pathological conditions or to aggravate those already established. It is to these latent or initial features of chronic disease as revealed by pregnancy that the internist with an eye to preventive medicine or to early diagnosis naturally directs his attention.

A word may be said about the organization of a department of internal medicine in an obstetric hospital. This department should include the ante-natal clinic in which each expectant mother is given a thorough medical survey. The purpose of this is to uncover such defects as foci of infection, nutritional faults, among the most important of which are the inadequate intake of vitamins, proteins, and salts; and the control of obesity. This clinic gives opportunity for the early discovery and effective treatment of syphilis, tuberculosis, pyelitis and other infections. The circulation seems particularly vulnerable in

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pregnancy and the early detection of hypertensive states, of heart disease, and of the various nephropathies, may be a determining factor in the success of the pregnancy and in the future health of the mother.

The establishment and recording of the maternal health status early in pregnancy by a thorough medical survey is of value in determining the extent and kind of any deviations from the normal arising as the pregnancy advances. The medical service should include a certain number of ward beds to accommodate women who at any phase of gestation exhibit medical conditions demanding care and study. While the obstetrician should be in supreme command, the medical care of these patients should be the responsibility of the internist. Decisions involving obstetric management should be made jointly by the obstetrician and internist. When necessary during labor cardiac and other cases should be supervised by the medical man as well as by the obstetric surgeon. One of the most important phases of obstetric medicine is the follow-up

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work. This is of particular value in the study of many problems of pregnancy, notably the toxemias. This, again, should be in the hands of the medical man, who may advise about the desirability of further pregnancies and the general management of pathological states uncovered in the post-partum clinic. Material collected in these medical clinics should add to our knowledge of the pathology of pregnancy.

One may divide into five groups the diseases in pregnancy which most concern the internist. These are the infections, the metabolic states, heart disease, the nephropathies, and the large and loose group which we call the toxemias.

THE INFECTIONS

Among the infections of particular medical importance in pregnancy are those of the respiratory tract. Influenzal and other types of pneumonia are among the greatest of hazards in pregnancy. The cyanosis which indicates anoxemia is a serious symptom. Under these conditions the uterus becomes irritable and premature labor is likely to occur. When this happens during the last trimester, the combined load of the infection and of labor is likely to result fatally. The prevention of anoxemia is therefore of the utmost importance. This is best accomplished by the early and free use of oxygen. The specific antipneumococcic serums, particularly the concentrated rabbit serums need not be shunned in pneumonitis in the pregnant woman. At the present writing it appears that chemotherapy is destined to replace serum therapy in pneumonia. Nowhere has the result of the use of sulfapyridine been more happy than in the pneumonias of pregnancy. The prompt fall in temperature and the marked reduction in toxemia within 48 hours after beginning the administration of this drug and the survival of mother and child despite premature labor at the height of the pulmonary infection is an experience giving the greatest possible satisfaction, in contrast with the discouraging results almost uniformly met with under former methods of treatment. The present practice, therefore, is the prompt use of sulfapyridine in pneumococcic pneumonias and of sulfanilamide when the streptococcus is the predominant organism, reserving serum for use in those cases not responding to chemotherapy.

Tuberculosis is largely an individual problem. In pregnancy active tuberculosis and maternal safety are incompatible. A period of quiescence of tuberculosis of at least two years is desirable before pregnancy is undertaken. Even such a rule is governed by collateral circumstances. These may be the economic status of the patient, the state of nutrition, the extent and kind of lesion, and the response to treatment. It is probable that tuberculosis is less of a danger in pregnancy than tradition has held it to be. The time honored rule that in the presence of active

tuberculosis pregnancy before the fourth month should be ended, and that after the fourth month it be allowed to go to term may be suitable generally but must be modified by the circumstances and character of each individual case. The importance of the discovery of syphilis and its adequate treatment early in pregnancy is so apparent it needs no discussion.

Pyelitis and pyelonephritis in pregnancy are problems of special medical interest. The great frequency of anatomical anomalies of the genito-urinary tract as a background for pyelitis and pyelonephritis needs emphasis. In many such cases and in a majority of those that do not clear up completely after delivery one finds obstructed or multiple ureters, hydronephrosis, anomalies of the vessels, horseshoe kidney or other developmental defects. The correction of such, in so far as this is possible, is an extremely important detail in management. Medically the treatment of these conditions is the alkalization of the urine and the free administration of fluids. Sulfanilamide is most effective in colon bacillus pyelitis. Mandelic acid and hexamethylinamine seem to benefit some cases. During their use the urine should be made acid in reaction. The catheterization of the ureters and lavage of the kidney pelvis should be reserved for cases that do not yield to the simpler medical methods but which continue to have chills, fever and pyuria. If such measures do not influence the situation favorably and if septic symptoms continue or increase, if jaundice occurs, or if there is evidence of sufficient renal damage to impair the margin of safety of the kidney, pregnancy should be terminated. The follow-up studies in cases of this type reveal chronic renal infection in a large proportion especially in those women with structural defects in the urinary tract.

A question of some importance is the relation of pyelonephritis to the toxemias of pregnancy. To us this seems casual rather than causal. The average case of pyelitis in pregnancy is not accompanied or followed by hypertension. Only in those cases in which there is destruction of kidney tissue sufficient to impair the factor of safety of this organ or disturbance of blood supply enough to bring into play the humoral factor in hypertension in accord with the experiments of Goldblatt, do these renal inflammations seem to be followed by hypertension. This is a matter which demands further study.

METABOLIC DISORDERS

Among the metabolic disturbances of medical importance in pregnancy are those concerning the thyroid and diabetes mellitus. Rarely are hypothyroid states a factor in gestation. The myxedematous woman is sterile. Rarely hypothyroidism develops as an accompaniment of toxic adenoma or simple goitre during pregnancy. The threat of fetal myxedema, of cretinism, of

abortion or of premature labor is real. Recognition of this state is important because of the success of treatment with thyroid substance.

GRAVES' DISEASE

Hyperthyroid states present a different and much more serious problem. The hyperthyroid woman is likely to be fecund. The sudden metabolic shifts of pregnancy and of hyperthyroidism offer a double menace. In general the patient with Graves' disease should not marry, and if married should not become pregnant. Once pregnancy is established under these conditions, the problem is serious. In the early phases of gestation symptoms of marked hyperthyroidism can develop with startling rapidity. There is a difference of opinion as to the desirability of abortion in this disorder. Any surgical experience is badly borne and carries threat of an acute and often fatal thyroid storm. On the other hand continuation of the pregnancy is not free from like dangers. In the early phases of gestation, the medical treatment with sedatives, rest, isolation and iodine should be tried. If the symptoms are well controlled, one has to decide in the individual case whether to abort or to proceed with the pregnancy. This is a matter about which one should not make general statements. In very serious types of Graves' disease abortion should not be undertaken. Preferred treatment is that with iodine, sedatives, perhaps the X-ray, to be followed by partial thyroidectomy. When the symptoms of acute hyperthyroidism are under control this operation can be undertaken during pregnancy with as much safety as in the non-pregnant. As a matter of practical experience one should be very sure of the existence of real hyperthyroidism before undertaking radical measures. Many recently married young women present a picture which is not unlike that of true Graves' disease. There is enlargement of the thyroid gland, tachycardia, palpitation, some tremor and nervous and emotional instability. The basal metabolic rates are moderately elevated. Often this picture is but an expression of emotional maladjustment which in the course of time vanishes. In cases of this kind thyroid ablation is a grave error and one often followed by troublesome endocrine imbalance in later life.

The diagnosis of diabetes mellitus in pregnancy is not always a simple matter, especially in those cases in which the disease arises during the pregnancy. Reducing bodies are present at some time in the urine of most pregnant women. These may be glucose, possibly the result of the occasional lowered renal threshold of the pregnant woman; they may be lactose; or both. A lowered glycogen store in the liver and a lowered assimilation limit for carbohydrate are described; also a tendency to acidosis with lowered CO_2 tension in the blood. Hypoglycemia is not infrequent. Sometimes the curve of glucose concentration

in the blood of the pregnant woman resembles that of the diabetic. Further complicating features are the increased basal metabolic rate in the last trimester, averaging 15 per cent, and the frequent if not constant effect of the fetal pancreas in modifying the insulin stock available to the mother. Since the days of insulin the maternal risk in diabetes in pregnancy is greatly lessened. An interesting and baffling fact is that the fetal death rate has not declined correspondingly. The reason for this is not clear. Hyperglycemia and acidosis remain the chief threats to fetal survival. Hypoglycemia is much less of a menace. The fetus survives this state in the mother even when it reaches the point of insulin shock. Fetal hypoglycemia seems harmless. In our series we have noted no examples of monsters nor any tendency to increased size of the fetus. We have been impressed by the high incidence of the vascular types of toxemia in the diabetic mothers as by the prominent factor of inherited diabetes, vascular disease and hyperthyroidism. The past obstetrical history in our diabetic patients is striking in its frequency of stillbirths, abortions and neonatal deaths. Therapy has its difficulties. Early in pregnancy vomiting increases the danger of acidosis with coma and abortion. This may come very quickly. Vomiting patients should have 200 grams of carbohydrate daily with enough insulin to take care of it and to control ketosis. Obesity in the diabetic must be treated actively. Sudden shifts in carbohydrate tolerance are to be expected as pregnancy advances. These may be either in the direction of increased or diminished capacity to assimilate carbohydrate. Often during labor the tolerance for carbohydrate is increased, probably because of the greater muscular activity of that act. During labor it is well to reduce the dosage of insulin by one half; governing this by frequent study of blood and urine for CO_2 combining power and for sugar. Susceptibility to infection is above the average and puerperal morbidity high. In our judgement the routine performance of cesarian section in uncomplicated maternal diabetes is unwise. Its use should be reserved for those cases in which the obstetric indications support it.

HEART DISEASE

Since rheumatic heart disease is so overwhelmingly preponderant in women of child-bearing age a consideration of heart disease in pregnancy concerns this problem chiefly. Congenital heart disease may be considered upon much the same basis. Rheumatic endocarditis most commonly involves the mitral valve and the problem of mitral stenosis in pregnancy is the one with which we most commonly have to deal. Lesions of the aortic valve are much less frequent: those of the pericardium and myocardium still less common.

The importance of the discovery of heart lesions early in pregnancy cannot be over-emphasized. Patients with a history of recurring rheumatic infection should be safeguarded particularly. Any foci of infection such as disease of the tonsils or of the accessory nasal sinuses should be dealt with. The occurrence of acute rheumatic fever during pregnancy with the possible involvement of endocardium, myocardium, pericardium or pleura may present one of the gravest possible complications of pregnancy. In general, however, one has to deal with the scars left by previous rheumatic infection. A woman with chronic heart disease must be observed at very frequent intervals. With the onset of any evidence of circulatory inadequacy such as edema, undue dyspnoea, cyanosis or any acute infection, particularly of the respiratory tract, hospitalization is desirable. Here the patient is treated as any cardiac case with decompensation. Rest, sedatives, digitalis as indicated, diuretics, and fluid and salt restriction are the ordinary measures. In general, cardiac insufficiency in pregnancy responds to this treatment as well as in the non-pregnant. It is to be borne in mind that the pregnancy does not cause a reduction in efficiency of the heart muscle: its sole effect is an increased physiological burden. When compensation is restored, the patient can be discharged from the hospital to resume limited activity well within the range of her cardiac capacity. The following rule may serve to guide the patient: Any effort not causing undue shortness of breath, fatigue, or cardio-respiratory discomfort is without harm.

Not every case responds satisfactorily to the ordinary medical treatment. Again, many women present themselves for care late in pregnancy and in a state of serious circulatory failure. Here one is faced with the question of ending the pregnancy. While this is not always a simple decision, it may be said that interference with pregnancy after the third month in the decompensated cardiac is rarely wise. Nature throws a number of safeguards about the cardiac mother. The infants are usually underweight. They are likely to be born before term. The edema of the maternal tissues accelerates rather than retards labor. Given satisfactory obstetric conditions, the average cardiac case has a short and easy labor. There is evidence to show that with the descent of the fetus late in the last trimester, the vital capacity of the pregnant woman increases and circulatory efficiency is likely to be greater than during the preceding weeks. If in a given case it seems wise to interfere with the pregnancy, one should wait until this descent of the fetus has taken place, delivery after this time being much safer. The second stage of labor is the greatest strain upon the heart and should be made as short and easy

as possible. The use of low forceps and open ether are recommended.

Perhaps the question with which the physician is faced most often is whether the individual woman with heart disease may safely undertake pregnancy. While each case must be decided upon its own merits, certain factors are helpful in a decision. These are the size of the heart; the functional response; the nature of the valve lesion; the previous cardiac history, particularly the past episodes of decompensation and the response of the patient to treatment; the economic status; the presence of complicating factors such as hypertension, edema, etc.

Most experienced observers believe that the larger the heart, the less efficient it is. We know that the functional response, while valuable, is by no means the sole factor in estimating cardiac efficiency. Mitral stenosis with its danger of pulmonary infection and infarction and of occasional unexplained sudden death, carries its own peculiar dangers. The economic question may be paramount. A woman may bear a child securely but break down with the added burden of a large family. The psychic aspect of the question is not unimportant. Many women are quite willing to exchange health and length of days for offspring. Others are not. Here the woman herself and her husband may rightly assume much of the responsibility of decision. Experience has taught us that if the woman with heart disease can be guided through pregnancy without suffering serious decompensation there is little if any decline in cardiac efficiency as a result of the venture.

THE TOXEMIAS

For clinical purposes the toxemias of pregnancy may be divided into the early and the late. The early toxemias are those of the first trimester and include chiefly pernicious vomiting. The etiology is quite unknown and thus far the internist has added nothing to the clinical or laboratory features of this disturbance or its treatment. The same may not be said of the late toxemias. These are of special medical interest and have stimulated much study at the hands of the internist, not all of which is unproductive.

Contrary to much early obstetric opinion studies by the internist have suggested that the late toxemias may not be simple idiopathic states characteristic of pregnancy alone but that they may evince or unmask underlying disease. These medical studies seem to show that such disease is usually in the cardiovascular or renal fields. One large group of the so-called late toxemias therefore is associated with the nephropathies. These may include glomerulonephritis, pyelonephritis, the nephroses and the congenital anomalies of the urinary tract. When complicated by pregnancy glomerulonephritis is a serious matter. Evidence of the disease becomes more

marked especially during the last trimester or a latent nephritis may first become manifest at any phase of gestation. Albuminuria, edema, a decline in the urinary output, high blood pressure, the presence of casts and blood in the urine, a secondary anemia; in the more serious cases a retention of nitrogen, albuminuric retinitis often with threat of loss of vision, even uremic convulsions. Fetal death occurs in more than 50 per cent of cases of this type.

NEPHRITIS

With the delivery of the fetus, the manifestations of the underlying nephritis do not disappear entirely. Albuminuria usually persists and, depending upon the seriousness of the nephritis, edema, hypertension and other features of the disease may also continue. This is quite in contrast with the usual experience in eclampsia and preeclampsia. In subsequent pregnancies the disturbance occurs earlier, is more marked and with even less likelihood of a living child. Each successive pregnancy seems to bring about additional renal damage. There are exceptions to this rule. Glomerulonephritis is a disease characterized by exacerbations and remissions which depend to a large extent upon the activity of the causative infection. Such fluctuations in the disease may affect pregnancy. If pregnancy occurs during a remission, it may result in a living child despite some degree of albuminuria and edema.

The treatment of glomerulonephritis in pregnancy is largely that of the underlying disease. Important are the prompt removal of all suspicious foci of infection, the shielding of the patient from exposure particularly to cold and wet and from undue physical and mental effort, the careful observation of the urine, particularly the total quantity and the amount of albumin. High blood pressure is an essential factor in prognosis. Usually bed rest is necessary when symptoms are severe. A diet in which salt is restricted to a minimum and in which the quantity of protein is determined by a resultant of two opposing factors. One of these is the degree of nitrogen retention which, when present, tends to discourage the use of protein food; the other a hypoproteinemia which encourages use of a high protein diet. Usually one has to compromise and allow a reasonable amount of nitrogenous intake. Such sedatives as chloral and bromide or the barbiturates are of considerable value in reducing the blood pressure and in promoting sleep.

The question of ending pregnancy is one demanding considerable judgment. If nephritis is manifest during the first half of pregnancy and tends to advance, abortion should be performed without delay. If the nephropathy appears later or advances slowly, it may be possible to carry the pregnancy along until viability of the fetus

is reached. In general it is not wise to allow pregnancy to proceed in the face of reduced urinary output, marked albuminuria and edema. If the blood pressure is high under these conditions and especially if there is nitrogen retention, albuminuric retinitis, or if uremic convulsions occur, pregnancy must be terminated no matter what the stage of gestation. The fetus almost always dies under these conditions and the future health and even the life of the mother is the chief concern. A further pregnancy should not be undertaken since it is almost certain to end disastrously for both mother and child.

The role of pyelitis and pyelonephritis in the toxemias of pregnancy is a matter of some debate. Many consider such renal infections important factors in the late toxemias of pregnancy. In the ordinary type of pyelitis and pyelonephritis there is not the hypertension or other evidence of so-called toxemia. Occasionally in certain severe cases of pyelonephritis one does observe such so-called toxic manifestations. It may well be that hypertension results when destruction of kidney tissue or impairment of renal circulation reach a certain amount. This entire subject needs further study. The congenital malformations of the kidney are important only if the factor of safety in the kidney is small and is abolished by the added load of pregnancy. This we sometimes see in polycystic kidneys or in that type of pyelonephritis which occurs in the presence of certain obstructive anomalies of the urinary tract.

In a consideration of the nephropathies in pregnancy one has to take account of the interesting possibility of a superimposed preeclampsia or eclampsia. It is the opinion of the writer, based as it is upon clinical experience as well as statistics, that the nephropathies in general tend to be complicated by such so-called specific toxemias of pregnancy in a much larger proportion than is the case with women having normal kidneys. The picture presented by these mixed forms of toxemia is indeed baffling to one attempting their analysis and classification.

PRE-ECLAMPSIA

The nephropathies are associated with less than 5 per cent of the late toxemias. In the remaining 95 per cent vascular lesions seem dominant and universal, the kidney being involved incidentally because of its rich supply of blood vessels. If one wishes to subdivide these non-nephritic late toxemias somewhat in accord with tradition, a useful classification is as follows:

- a. Pre-eclampsia
- b. Eclampsia or convulsive toxemia
- c. Simple hypertensive states, mild
- d. Simple hypertensive states, severe.

It is probable that eclampsia and pre-eclampsia are one and the same disturbance, the difference

being one of degree only. Under pre-eclampsia one may list somewhat arbitrarily those cases having a hypertension of sudden onset followed by albuminuria and edema during the last trimester. Accessory and less constant symptoms and signs are headache, epigastric pain and tenderness, a gain in weight, exaggerated deep reflexes, a hypo-proteinemia often with inversion of the albumin-globulin ratio; at times an anemia, a sensitiveness to the administration of sodium and characteristic changes in the retina to be described under eclampsia. This disturbance usually ends with delivery. The blood pressure subsides in a few days and the albuminuria and edema disappear. Maternal deaths from pre-eclampsia are rare. Fetal deaths occur in about 20 per cent of the cases and are associated with pre-maturity. Pre-eclampsia may not be repeated in later pregnancies. On the other hand it may recur or be replaced by a simple hypertensive state. During the follow-up years a small percentage of women who have experienced pre-eclampsia develop characteristic cardiovascular disease with hypertension. In our series about 12 per cent have developed this disease.

ECLAMPSIA

Eclampsia usually gives the same preliminary symptoms and signs as pre-eclampsia. The convulsion is the most important feature setting this apart from pre-eclampsia. Usually the hypertension of eclampsia is more prolonged and reaches a higher point than that of pre-eclampsia. Headache is more common as is epigastric pain and tenderness sometimes with jaundice. Reflex irritability is more of a feature in eclampsia. The maternal mortality is high, averaging 14 per cent. The fetal mortality is extremely high, in our series 36 per cent. With delivery of the fetus the symptoms and signs of eclampsia are likely to disappear as in pre-eclampsia. In future pregnancies the disturbance may recur or, as is more commonly observed, a simple hypertensive state develops. Despite recovery from the immediate attack these women have a shortened life expectancy.

One of the most important features of eclampsia and pre-eclampsia is revealed by the ophthalmoscope. The spasm of the retinal arteries which may be intermittent or continuous, universal or localized, can be made out by the experienced observer. This accompanies the initial hypertension. If it lasts more than a few days an edema of the retina takes place, the retinal markings become obscure, the disc margins difficult to make out. Later features are exudate, hemorrhage and in a few cases retinal separation. The last named carries with it a good prognosis. Re-attachment of the retina with decline in edema is almost the rule and vision is restored. The laboratory features of pre-eclampsia and eclampsia are not characteristic. In contrast with the nephropathies

in pregnancy there is no retention of urea or of non-protein nitrogen. The uric acid of the blood also the fibrinogen and cholesterol may be elevated. Albuminuria may be present in maximal amounts. Anuria is not infrequent. Death may be the result of a cerebral hemorrhage or cardiac dilatation with pulmonary edema during or following convulsions. There is increased susceptibility to infections.

The management of pre-eclampsia is not complicated. Women thus afflicted should be placed in bed, preferably in a hospital, with hourly observation. The blood pressure must be carefully followed as must the edema, the albuminuria, and the quantity of urine voided. Salts of sodium, especially the chloride and bicarbonate, should be denied. Fluids should be given in amount barely necessary to satisfy thirst. Bowel function should be active and saline laxatives and colon irrigations are valuable. Cases that are sleepless, restless, or exhibit great activity of the deep reflexes which often are a premonition of convulsions, need sedatives. Among the best of these are the barbiturates, luminal, sodium amytal, sodium luminal or chloral and bromide. If the blood pressure is high the intravenous administration of 25 cc. of 10 per cent solution of magnesium sulphate is very helpful in its reduction. This measure which may be repeated several times in 24 hours also diminishes nervous irritability, tends to ward off convulsions, and brings about diuresis. The diet should contain a moderate amount of protein in addition to abundant carbohydrate and probably a small amount of fat. If the intake of food is inadequate and especially if acidosis is present concentrated solutions of glucose should be given intravenously. If convulsions occur large amounts of morphine are necessary supplemented by the barbiturates or by chloral and bromide. Lumbar puncture may be done in suitable cases. In general one should avoid forcible delivery of the eclamptic woman. Usually in severe cases nature cares for the eclamptic mother by premature death of the fetus or its early expulsion.

THE SIMPLE HYPERTENSIVE STATES

Under these are included patients who during pregnancy have a gradual rise of blood pressure to a point not above 160 systolic or 110 diastolic, with little or no albuminuria or edema, and without the other features of pre-eclampsia or eclampsia. In reviewing a large series of cases of this kind it is noted that this blood pressure during the entire gestatory period is higher than that of the average woman in normal health. In some the rise of blood pressure takes place just before term without the prolonged rise characterizing most cases. It is difficult and may be impossible to distinguish these from examples of mild pre-eclampsia. Hyper-reflexia is absent, the

retinal changes are those of a mild vascular disease with hypertension. Often there is some enlargement of the left ventricle with accentuated second sound at the aortic area, not infrequently palpable peripheral arteries. After delivery of the fetus there is a decline in both systolic and diastolic pressures. This, however, may not be as striking as that seen in eclampsia and pre-eclampsia. When followed for a period of years at least a third of these cases exhibit typical cardiovascular disease with hypertension: a fact repeatedly confirmed at necropsy. Such simple hypertensive states are not an immediate threat to the life of the mother; their importance lies in their menace to her future health. In our series fetal deaths were 5 per cent of this class of cases.

SEVERE HYPERTENSIVE STATES

Under this heading are listed cases having a systolic pressure above 160 and a diastolic above 110 mm. Hg. In this group we note a tendency to hypertension early in pregnancy or its presence before conception. The rise of blood pressure is gradual and may be observed throughout the entire period of gestation, becoming more pronounced as term approaches. It is in this series that some of the highest blood pressure readings are recorded. A certain number exhibit albuminuria and edema. Spastic or sclerotic retinal arteries sometimes with edema, hemorrhage, or exudate may be seen. Fetal death and premature delivery are to be expected in cases with pressures above 180 mm. especially if albuminuria is marked. After delivery blood pressure falls but not in a striking manner.

During the follow-up period practically all of these women reveal cardiovascular disease with hypertension, findings which are confirmed repeatedly by necropsy. In many this takes the form of a malignant nephrosclerosis. The course of examples of severe hypertension in further pregnancies is less favorable. Each gestatory period seems to inflict added damage upon the circulation and to set more deeply the chronic vascular disease. An occasional unexplainable exception does not lessen the practical value of this rule. It is probable that these simple hypertensive states whether mild or severe are but examples of latent or manifest cardiovascular disease with hypertension brought into the open or aggravated by pregnancy. As such they cannot be regarded as specific toxemias of pregnancy. Superimposed pre-eclampsia and eclampsia are frequent and give a resultant picture at times hard to classify.

At this point the interrelationships of these non-nephritic types of late toxemia may be touched upon. Are these conditions so different, after all? There are certain phases of each during which differentiation is difficult or impossible.

At the peak of the disturbance all have hypertension, and may show albuminuria and edema. The retinal picture is much the same in all types, vascular spasm with secondary and resultant changes being common to pre-eclampsia, eclampsia and the states which we have termed simple hypertension. During the follow-up period and at necropsy the pathologic processes that seem to be definite sequels of the toxic pregnancy are those of vascular disease with hypertension, alike in all types. When studied in successive pregnancies a given woman may experience a simple hypertension in one pregnancy, an eclampsia in the next, or the order may be reversed. Other factors in common are heredity-vascular disease, diabetes and hyperthyroidism being frequent in the family histories; also a peculiar bodily habitus. The latter is characterized by a short stocky figure, by overweight and by heterosexual stigmas which may include an android pelvis and hair distribution. It is our experience that the mortality in women with any of these types of toxemia is startlingly high and that over 80 per cent of the deaths during the follow-up are from cardiovascular-renal disease.

It now seems probable that the fundamental disturbance of physiology in the toxemias of pregnancy as in certain simple hypertensive states is a spasm of the arterioles. This can be observed directly in the retina, also less satisfactorily in the nail fold. When this spasm exists for a sufficient length of time, permanent changes take place in the walls of the vessels. The resulting diminution in caliber deprives the parenchymatous organs, particularly the kidneys, of their proper blood supply. Here are some of the conditions of Goldblatt's experiments in which hypertension is produced by constricting the renal artery. An important difference is that the arterial narrowing in the toxemias is of the smaller vessels. This mechanism establishes a vicious circle of arterial spasm, hypertension, injury to the kidney and other parenchymal organs through an inadequate blood supply, in turn leading to hypertension. If of brief duration or mild degree the process is reversible and recovery takes place; if sufficiently severe and prolonged, the damage is permanent. The factor initiating the arteriolar spasm is unknown. One must await added knowledge of physiology especially that of the endocrine glands and of the sympathetic nervous system before venturing further theories.

16 East 90th St.

A woman had been treated for thirteen years by a physician, and with home remedies. Finally, admittance to the hospital revealed that she could not be catheterized. Diagnosis: A calculus the size of a fetal head, filling the entire bladder.—C. W. Louis Hacker, Albany.

Treatment of Gonorrheal Arthritis

ROBERT M. STECHER, M.D. and WALTER M. SOLOMON, M.D.

DURING the past 20 years, the problem of arthritis has attracted more and more attention from the medical profession, public officials, insurance companies and other groups interested in the health and welfare of the community. This interest has arisen from a growing realization of the toll which joint diseases exact in disability, lack of efficiency and cost of medical care. It is gratifying to report progress made and improvements observed in the care of at least one type of arthritis. There can be no doubt that proper therapy insures prompt relief in a high percentage of cases of gonorrheal arthritis.

Arthritis is seen as a complication of gonorrheal infections in less than 5 per cent of acute cases. Onset occurs from days to weeks after the initial infection. Gonorrheal arthritis begins as an acute, painful, migratory arthritis involving large joints but it soon settles in one or two joints. Here it persists for weeks or months with pain, tenderness, swelling, redness and effusion in the joint. Destruction of cartilage and bone and the formation of adhesions lead to severe and irreparable joint damage with thickening of the joint capsule, limitation of joint motion and bony ankylosis. Wide variations of the above picture are seen. There may be only arthralgia, or a mild arthritis which subsides spontaneously. Tendon sheath infections are occasionally seen, either alone or associated with arthritis. Joint effusions may be frankly purulent.

Gonorrheal arthritis is occasionally seen with clinically silent foci in the genital tract, occurring in patients years after the original infection or in patients without suspicion of ever having been infected. Spinck and Keefer¹ recently described 13 such cases. Gonorrheal arthritis appeared following infections of the upper respiratory tract, pelvic operations, pregnancy or cellulitis. Acute rheumatic fever was suspected in several instances because arthritis was preceded by acute infection of the upper respiratory tract but the true nature of the disease was revealed by gonorrheal complement fixation tests or isolation of the organisms from the genital tract or the involved joint.

Diagnosis depends upon the identification of gonorrheal infection in a patient with acute arthritis. Although it is possible for a patient with gonorrhea to have joint disease due to some

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other cause, arthritis in such a case is usually presumed to be due to the specific infection. Recovery of the gonococci from the joint itself constitutes the only absolute proof of the diagnosis.* A clinical diagnosis may be made from a history of infection and identification of the gonococci in the genital tract. Gonorrheal complement fixation tests should be done on the blood in all doubtful cases³. Joints the seat of effusion should be tapped and the fluid examined by stained smears and cultures⁴.

The differentiation between gonorrheal arthritis, acute rheumatic fever and acute infectious arthritis of undetermined origin may be difficult at the onset of the disease. All three may manifest fever, leukocytosis, and rapid sedimentation rate and they may exhibit migratory involvement of several joints with pain, tenderness, heat, swelling and effusion. The future course of the disease reveals its true nature in most cases. Laboratory study will reveal the nature of the infection in gonorrheal arthritis. Rheumatic fever is characterized by the persistence of migratory involvement of the joints, prompt subsidence of arthritis with adequate salicylate therapy, the absence of permanent joint damage and, in many cases, the appearance of cardiac involvement. The diagnosis of acute infectious arthritis of undetermined origin is made by

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*The observation of Gram negative intracellular diplococci is not absolute proof of gonorrheal infection. *Micrococcus catarrhalis* is indistinguishable by smear alone from gonococci and can at times produce arthritis².

exclusion. This disease exhibits all of the clinical signs usually associated with gonorrheal arthritis. A series of 20 such cases treated by artificial fever with satisfactory results was recently reported by the authors⁵. These cases were indistinguishable from gonorrheal arthritis by clinical signs but no evidence of gonorrheal infection could be demonstrated. In cases of doubt, it seems advisable to institute therapy for gonorrheal arthritis.

TREATMENT

The treatment of choice for gonorrheal arthritis is the proper administration of sulfanilamide. Ample evidence is already available demonstrating the effectiveness of this drug in gonococcal infections of all types. Success of the treatment depends upon the care and control with which it is administered. Many details to be observed in its use, requiring constant clinical and laboratory control, make hospitalization desirable. Simple instructions to the patient to take so many pills a day does not insure success.

The routine treatment at City Hospital provides for the daily administration of 120 grains orally for the first three days, followed by 60 grains per day thereafter. The drug is given in six equal doses at four hour intervals throughout the night and day to insure an adequate blood level at all times. This should be maintained at 10 milligrams per 100 cc. to insure success. Fluid intake is limited to 2,000 cc. to prevent rapid elimination. Other sulfur compounds, particularly magnesium sulfate, are avoided while sulfanilamide is given. The value for hemoglobin, the red blood cell count, the white blood cell count should be determined and smears of the blood should be examined at frequent intervals to note the occurrence of anemia or impending granulocytopenia. Headaches, malaise, lassitude and cyanosis occur very frequently but are of no real significance. Severe anemia, leukopenia, drug fever, skin rash, hepatitis, and toxic psychosis suggest serious complications and are contraindications to further therapy.

Eleven patients with gonorrheal arthritis have been treated with sulfanilamide at City Hospital. The diagnosis was established by culture of the joint fluid in three cases, complement fixation test in five cases and positive urethral smears in three cases. Four of the 11 patients had prompt and complete relief of joint symptoms from sulfanilamide therapy alone. Two other patients received prompt relief of the acute arthritic symptoms but were left with some degree of limitation of motion which required physical therapy. Sulfanilamide was discontinued in five cases in favor of fever therapy. Further consideration of these five cases showed that three received the drug in inadequate amounts

as revealed by blood level estimations. One patient became toxic from the drug, and it was discontinued. In one case the blood level was maintained at 11 milligrams for two weeks without objective improvement in the joint symptoms. Thus, it is seen, that six of the seven patients who were given the drug in adequate amounts obtained prompt and satisfactory results. Two other clinics⁶ have reported satisfactory results in gonorrheal arthritis treated with sulfanilamide alone. These reports state that the end results are more satisfactory and take place in shorter periods of time than occurs with other forms of therapy.

The above discussion gives an inadequate impression of the effectiveness of the drug in gonorrhea. The use of sulfanilamide has decreased greatly the incidence of gonorrheal complications at City Hospital. Sulfanilamide has been used routinely for gonorrhea in the genito-urinary dispensary since the latter part of 1937. In 1938, the first full year of its use, 18 patients were admitted to City Hospital with gonorrheal arthritis. During the previous four years this number varied from 36 to 44 with an average of 40. On the genito-urinary service at City Hospital 40 patients were admitted in 1938 for gonorrheal complications of various types, compared to 77 patients in the previous year. In 1938, 12 patients were admitted with the diagnosis of gonorrheal ophthalmia compared to 21 in the previous year. Inasmuch as there was no reduction in the incidence of gonorrheal infection in the genito-urinary dispensary during this period, these figures indicate that sulfanilamide therapy has reduced by one-half the incidence of complications of gonorrhea.

Before the introduction of sulfanilamide, artificial fever therapy was the most effective treatment available for gonorrheal arthritis. Many observers reported cures in 60 to 80 per cent of the patients treated, and marked improvement was seen in a large proportion of the remaining cases. The degree of recovery depended very largely upon the amount of joint damage which had occurred before therapy was instituted. In our own series of 103 cases of gonorrheal arthritis treated with artificial fever therapy, 60 per cent were completely cured and 20 per cent enjoyed complete cessation of joint inflammation. These patients could not be considered completely cured because of the severity of joint damage which they had suffered before fever was applied. To be effective in gonorrhea fever must be maintained at high temperatures for long periods of time. It is customary in several clinics to maintain a rectal temperature of 106½°F. for ten consecutive hours, such a treatment sufficing to eradicate completely the infection in a high percentage of cases. We wish to point out that the metastatic manifestations of

gonorrheal infection seem to respond much more easily to fever therapy than does the primary focus. In our series⁷ of patients with gonorrheal arthritis we frequently observed complete cessation of joint activity with lesser doses of fever than were required to sterilize the genital focus. Fever therapy for gonorrheal infections of any type is a hospital procedure and should be given only in institutions properly equipped with satisfactory form of apparatus in charge of properly trained personnel.

Despite proper administration and adequate control, both sulfanilamide and fever therapy occasionally fail. A combination of sulfanilamide and fever therapy has been recommended⁸ and evidence is accumulating that this therapy is successful. It is hoped that cure can be obtained in a high percentage of cases with smaller doses of sulfanilamide and shorter sessions of fever therapy. Sulfanilamide becomes more effective against the gonococcus as temperature increases.

Other forms of therapy such as the administration of gonococcus vaccine or gonococcus filtrate and the use of roentgenotherapy have been largely displaced by sulfanilamide or fever therapy. Joints, the seat of purulent effusion, should be treated by surgical removal of pus. This is accomplished by lavage using trocars or open incision. Lavage is best done by large amounts of warm saline, and the incision is closed. The use of strong antiseptic solutions in joint cavities should be avoided because sterilization of the joint cavity can not be accomplished, and injury to joint tissue results.

Physical therapy is effective in gonorrheal arthritis under certain conditions. Such treatment is particularly valuable after the inflammatory process has subsided. Heat, massage and graduated exercises hasten the elimination of residual soreness and limitation of motion. Care must be exercised to keep these procedures within the limits of tolerance of the patient to avoid aggravating the inflammation by trauma. The necessity for physical therapy is in proportion to the severity of the original inflammatory process and the duration through which it was active.

In part at least, we may say that gonorrheal arthritis is a preventable disease. Although the time has been too short to notice any appreciable benefit from the current campaign against venereal disease, it is reasonable to expect that a marked reduction in the incidence of gonorrhea can be attained. Although such reduction is not noticeable as yet, evidence has been presented to indicate that the incidence of complications is definitely reduced. Even when complications occur, proper therapeutic measures promptly applied give better results than could be expected several years ago. The diagnosis of gonorrheal infections requires alertness on the part of the

attending physician, confirmation by means of laboratory procedures and treatment by powerful therapeutic measures. Constant vigilance in the application of newer knowledge should result in a marked diminution of incidence of stiff joints due to gonorrheal infection.

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Serum Treatment of Pneumonia

A word about the mathematics of adequate oxidation. Each average breath by a normal individual is about 500 cc. and is known as the tidal air. The amount of residual air is about 1,000 cc., but before the tidal air can get into the alveoli and exchange with the residual air, it must first pass through a dead space of approximately 150 cc. Therefore, shallow breathing pneumonics, who seldom breathe over 200 cc. per breath, get only a small amount past the 150 cc. dead space. Children may breathe shallowly, and in them a 60 cc. breath will often suffice because it has to pass a dead space of only 30 cc., and this permits a complement of 30 cc. to get into the residual air whose total is only 300 cc. That 10 per cent of new air satisfies the child. But in order for a 1,000 cc. residual air adult to get 10 per cent, he must get 100 cc. past the dead space. That would mean that each breath would have to be approximately 250 cc. It is doubtful if many pneumonics take in that much air at any given breath. Furthermore moisture decreases very much the ability of oxygen to pass from alveoli to capillaries.—Robert Hoffman, M.D., South Bend, Ind.; *Jour. Ind. S. M. Assn.*, Vol. 32, No. 12, December, 1939.

Hyperinsulinism Due to an Adenoma of the Pancreas: Fatal Outcome Due to Myocardial Failure: Autopsy Report

LOUIS G. HEYN, M.D., and LOUIS SOMMER, M.D.

THIS case of hyperinsulinism was first reported by one of us (L.G.H.) in 1932.* Up to that time the disease had been infrequently recognized and the pathogenesis was still obscure. Cases had been reported however by Wilder and others which were accompanied by definite pathologic change in the islet tissue of the pancreas. During the past five years the literature has abounded with reports of this disease—from the milder varieties which Seale Harris has described to the more severe types, in which surgical treatment has sometimes been brilliantly successful. In 1935, Whipple and his associates reported a large series treated surgically and included comprehensive studies in pathology as well as an inclusive bibliography.

In the cases so far reported, we have not noted any deaths due to heart disease which complication we believe may be an expected terminal event in instances where the patient survives under a dietetic regimen for a long number of years. The cause of the cardiac condition, we are unprepared to state; whether it is related to a deficient glycogen storage in the heart muscle or possibly to an avitaminosis related to the large amount of carbohydrate of the diet is conjectural. This latter hypothesis of a B-1 deficiency, (beriberi heart), was advanced by Dr. Soma Weiss who saw our patient a very short time before death when medical measures directed towards this deficiency could hardly be expected to avail. Can hypoglycemia produce heart disease? Large doses of insulin, especially with individuals with a failing heart can produce arrhythmias and other evidence of circulatory failure. It seems likely that surplus insulin may produce functional changes in the heart of a kind ultimately leading to failure. Strouse reported the occurrence of angina pectoris in diabetics with coronary disease when receiving insulin.

THE CASE

A summary of the earlier report with subsequent clinical course and autopsy findings follows:

A.M.: Age 48—a garage superintendent was a powerfully built man of 165 pounds. At intervals during the preceding seven years he had suffered attacks of weakness and of cold and numbness of the extremities. The first severe

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episode had occurred early in 1930, when his vision became blurred as he was driving an automobile with a resulting accident. He was unconscious for an hour and several hours later had an attack of violent uncontrollable movements of his extremities—followed by profuse perspiration. Subsequently, he was seen on Dec. 21, 1930, after an automobile ride, when he found himself unable to alight from the car or to walk. He was taken to the Jewish Hospital but on arrival had already regained his ability to move his extremities. The next morning however, before he had breakfast he became very emotional without apparent reason and then became violently active—pulling at bed clothing and at any other objects he could reach and making peculiar grimaces and noises. It took three attendants to restrain him—the attack lasting 10 minutes and then he became quite normal again, however remembering little of what had taken place. The blood sugar taken just before the attack was reported as 33 mg. per cent. The various findings on physical examination will not be noted here, but in view of his subsequent cardiac history, it should be remarked at this time that the heart was found to be normal in size—the blood pressure was 135/80 and there were no symptoms referable to the circulatory apparatus. With a dietary adjustment the patient felt well again and pursued his daily work without any difficulty. At the time surgical treatment still barely tried was advised but refused.

THREE YEARS LATER

In February 1934, somewhat over three years after our first observation, the patient re-entered the hospital. He had been in good health until a short time previously when a considerable increase in weight and dyspnea on exertion were noted. He showed a slight cyanosis of the lips and hands with some orthopnea and an unproductive cough. There was a slight distention of the veins of the neck, but no edema, and no enlarged liver. At this time, the heart was found

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to be considerably enlarged to the left, 13 cm., in the sixth intercostal space. The heart rate was moderately elevated, usually below 100, with an occasional extra systole; no murmurs were heard but the heart sounds were faint and he was in evident cardiac embarrassment. The blood pressure was 136/70. The EKG at that time showed moderately low voltage of the QRS in all leads and an occasional extra systole. He was put to bed and placed on digitalis therapy. During his stay in the hospital, he was more or less orthopneic with an occasional severe attack of nocturnal dyspnea and a rather marked non-productive cough. The urinary output was satisfactory. Fasting blood sugars varied between 55 and 89 mg., per cent.

The patient was dismissed from the hospital, not fully recovered, but with the intention of taking a long rest. He then for all practical purposes gave up his work and for two years remained in comparative comfort. In 1936, he had a severe accident to his right shoulder and some time later developed an acute respiratory infection with severe bronchitis. He was re-admitted to the hospital a short time later complaining of difficult breathing and epigastric distress. There was no edema and no diminution of urinary output. He was discharged after four weeks somewhat improved but returned again in one month, with definite ankle edema, breathlessness, nausea, vomiting at times and a tender and palpable liver. During this particular residence in the hospital, in May, 1936, the patient also developed a severe respiratory infection with an acute sero-fibrinous pleurisy. Then somewhat later as a complication there developed an acute hepatitis with jaundice. His cardiac insufficiency was present during all of these complications and there were many variations in the rhythm, paroxysmal auricular fibrillation, extra systoles, and also an auricular flutter with varying degrees of block. There were also, however, periods of normal rhythm, but with persistent low voltage of QRS. The blood pressure now assumed a lower level and the pulse was of poor volume.

After a long hospital residence, from May until August, he returned to his home quite remarkably improved. His last residence in the hospital began in October, 1936, and lasted until February, 1937. Most of this time, he was given cardiac medication of various kinds, as well as sedatives; however, he became gradually more dyspneic and edematous and there were pleural and peritoneal accumulations of fluid. The picture was that of a slow terminal congestive failure. During this period, the EKG findings were interesting. The most frequent abnormality was an auricular flutter with three to one and five to one block which lasted for many weeks. During all of this period of cardiac disability there was no significant alteration in his fasting blood sugar which varied between 44 and 70 mg. per cent. The patient had frequent attacks of extreme weakness and collapse, the cause of which could not always be determined but was probably cardiac. Often the blood sugar was not altered even though food had not been taken for a long period. In spite of this latter fact, the greatest comfort during these episodes was obtained by the intravenous injections of glucose. Morphine had a more prolonged effect, but glucose was the more prompt and spectacular, even though the blood sugar was not at a level which might pro-

duce hypoglycemic reaction. The patient lapsed into coma a few hours before death which occurred on Feb. 19, 1937. He had been under observation after the diagnosis of hyperinsulinism had been made for over six years previous to this time. An autopsy was performed by Dr. Sander Cohen six hours after death.

THE AUTOPSY

The principal gross and microscopic findings were as follows:

The pancreas was very small—the head measuring 4 cm. by 2 cm.; the body $1\frac{1}{2}$ cm. by $\frac{7}{10}$ cm., the tail 2 cm. by 1 cm. There was palpable in the head of the pancreas a firm nodule which on section proved to be an encapsulated tumor. It was of light pinkish color about 1 cm. in diameter. Histologically this adenoma of the pancreas was composed of islet cells, which however did not form any definite structure such as acini or definite islets in a few areas. More often these cells seemed to be growing in single or double strands. There was considerable pale strawy amorphous intercellular stroma giving the appearance of degenerated tissue. The pancreas proper showed some fibrous changes but the Islands of Langerhans were well preserved and some of them markedly hypertrophied. The heart was greatly enlarged and weighed 605 gm. and all chambers were much dilated. The tricuspid valve measuring 150 m.m. in circumference readily admitted four fingers. Both ventricles contained mural thrombi. The wall of the right ventricle measured from 2 to 4 mm. in thickness—the left 3 to 8 mm. The aorta showed considerable atheromatous change, the coronaries very little change and were patent throughout. Histologically the heart showed extensive degenerative changes and many areas of chronic inflammatory change with fibrosis. Occasionally an area suggesting a small acute infarction was noted and a moderate arteriolar sclerosis was present. The lungs showed considerable thickened pleura, numerous infarcts and an area of lobular pneumonia. Other organs showed changes referable to the severe congestive failure. The kidneys and prostate showed scattered adenomata.

COMMENT

The relationship of pancreatic adenoma to hyperinsulinism is obvious; but in what fashion, if any, was the latter related to the fatal heart disease? No real answer may be given. It is not impossible that an excess of insulin over a long period of time, accompanied by hypoglycemia, and treated by a high carbohydrate diet could have resulted in chronic myocardial disease similar to that seen in vitamin B deficiency. On the other hand it is by no means rare to see patients with large hearts and chronic failure of obscure etiology come to autopsy showing the same non-specific findings as did the patient under discussion. It may be that the entire picture is understandable in our case on the basis of arteriolar sclerosis of the coronary branches, and that the existence of hyperinsulinism was indeed mere coincidence, interesting in itself but not causally related to the fatal cardiac failure.

19 Garfield Place.

Combined Spinal-Inhalation Anesthesia

BRANT B. SANKEY, M.D., and JOHN K. POTTER, M.D.

LUNDY coined the term "combined anesthesia"² in 1926 to refer to anesthesia produced by several agents or methods, utilizing the good effects of small doses of a number of agents rather than using a single large dose of one agent. The use of combined spinal inhalation anesthesia has been referred to in recent years by Wiggin and others.

Waters⁶ in 1930 defined anesthesia as "a reduction of the reflex irritability of a given patient to such a point that necessary surgery can be accomplished with minimum danger, pain and discomfort to the patient and with maximum convenience to the surgeon." He stated that "Un-supplemented spinal anesthesia can fulfill this definition in very few cases."

In this particular discussion, combined spinal-inhalation anesthesia refers to pontocaine weighted with glucose solution as described by Sise⁵ and intentionally supplemented with cyclopropane prior to the onset of the operation.

As Maxson³ and others have pointed out, cyclopropane is generally the most satisfactory agent to use when it is desired to supplement spinal anesthesia. The ease of induction, the potency and the excess oxygen which can be administered with cyclopropane renders it especially valuable.

A consecutive series of these combined spinal-inhalation anesthetics is compared to a somewhat similar series using spinal anesthesia alone. The technique and agent employed for the sub-arachnoid block in both series was the same except that in the combined spinal-inhalation cases, relatively smaller doses of the spinal drug were employed.

TABLE 1

	Spinal	Spinal-Inhalation
Upper Abdom. 111 cases	43.2%	56.8%
Lower Abdom. 730 cases	55.7%	44.3%
Extra Abdom. 248 cases	99.2%	.8%
1089 cases		

The first table shows the number and percentage of cases of both the spinal and combined spinal-inhalation anesthetics which have been classified according to the region of operation, that is, upper abdominal, lower abdominal, and extra abdominal. In the spinal series, the dose of the spinal anesthetic drug was calculated to produce sufficient anesthesia for the operative procedure anticipated.

There is a large variation in the number of cases in the two extra abdominal groups, but this may be explained by the fact that when indications were present for an inhalation anesthetic,

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a spinal anesthetic was seldom used. So in comparing these two series, our attention will be focused on the upper and lower abdominal operations. Of the upper abdominal cases, 43.2 per cent are in the spinal series while 56.8 per cent are in the spinal inhalation series. In the lower abdominal operations 55.7 per cent are in the spinal series as compared to 44.3 per cent in the spinal inhalation series.

Table 2 shows a comparison of the dosage of pontocaine in upper abdominal surgery in the two series. In upper abdominal surgery it will

TABLE 2
Upper Abdominal Cases

Dosage of Pontocain	Spinals	Spinal-Inhalation
12 mg. or below	33.4%	84.3%
Above 12 mg.	66.6%	15.7%

be noted in the spinal series that (2/3) two-thirds of the cases as compared to (1/6) one-sixth of the cases in the spinal inhalation series received more than 12 milligrams of pontocaine.

In lower abdominal surgery in the spinal series, (1/3) one-third of the cases as compared with

TABLE 3
Lower Abdominal Cases

Dosage of Pontocain	Spinals	Spinal-Inhalation
12 mg. or below	33.4%	89.9%
Above 12 mg.	66.6%	10.1%

(9/10) nine-tenths of cases in spinal-inhalation series received 12 milligrams or less as shown in Table 3.

By decreasing the dose of the anesthetic drug

injected into the subarachnoid space, one of the underlying factors in the production of untoward effects in spinal anesthesia is reduced.

The importance of maintaining good intercostal activity during spinal anesthesia has been pointed out by Rovenstine and Taylor⁴ who studied the post-operative respiratory complications following 7874 anesthetics.

In our experience a higher level of anesthesia and relatively larger doses of the anesthetic drug increased the difficulty in maintaining normal intercostal activity.

Table 4 shows that in the spinal series 27 per cent of the cases in the upper abdominal group had marked intercostal depression while only 3.1 per cent of the upper abdominal cases in the

TABLE 4
Intercostal Activity Impaired or Abolished

	Spinal	Spinal-Inhalation
Upper Abdom.	27. %	3.1%
Lower Abdom.	3. %	.3%
Extra Abdom.	.4%	0 %

spinal inhalation series had impaired intercostal activity. The incidence of impaired intercostal activity in the entire spinal series was 30.4 per cent as compared to 3.4 per cent in the spinal inhalation series.

When combined spinal-inhalation anesthesia is employed it is advantageous to use an inhalation agent such as cyclopropane which may be administered with high concentrations of oxygen; thus if intercostal activity is impaired to some degree, oxygen want is less likely to occur. Also it is easier to recognize and correct any decrease in minute volume exchange when these patients are being carried on a gas machine than when spinal anesthetics are unsupplemented.

One of the most frequent causes of anxiety in spinal anesthesia is the fall in blood pressure. Bradshaw¹ in experimenting with animals concluded that the fall in blood pressure following procaine spinal anesthesia was due to paralysis of the vaso-constrictor fibers. Bradshaw¹ recommended "the use of small doses and the limitation of drugs injected to a small number of segments of the cord so that few vaso-constrictor fibers are paralyzed."

TABLE 5
BLOOD PRESSURE
Upper Abdominal

Blood Pressure Drop	Spinals	Spinal Inhalation
None	21. %	36.8%
10 mm.-20 mm.	33.2%	33.2%
20 mm.-over	45.8%	30. %

Table 5 is a comparison of the fall in blood pressure in the two series which underwent upper abdominal surgery, showing relatively greater

falls in blood pressure occurred more frequently in the spinal series than in the spinal inhalation series.

TABLE 6
BLOOD PRESSURE
Lower Abdominal

Blood Pressure Drop	Spinals	Spinal Inhalation
None	38.9%	66. %
10 mm.-20 mm.	34.3%	19.7%
20 mm.-over	26.8%	14.3%

Likewise in lower abdominal operations, as noted in Table 6, the incidence and degree of circulatory depression was less in the combined spinal-inhalation series. It appears from the foregoing two tables that the height and dosage of the spinal anesthetic are two of the important factors in the production of circulatory depression.

TABLE 7

Duration of Operation	Less than 60 Min.	1-2 hrs.	2-3 hrs.	3 hrs. +
Spinals	78.3%	19.7%	1.9%	.1%
Relaxation Wore Off	0%	0%	.2%	0%
Spinal-Inhalation	69.6%	26.7%	3.5%	.2%
Relaxation Wore Off	0%	3. %	2. %	0%

The disadvantage of using a small dose of a spinal drug is that the anesthesia wears off sooner than if larger and more potent doses are employed, thus illustrated in Table 7.

Motor relaxation obtained from the spinal anesthetic wore off earlier in the combined series. But this disadvantage is seldom troublesome because the cases are already supplemented with an inhalation agent. In the majority of cases the advantage of using a small dose of the spinal anesthetic drug combined with light cyclopropane anesthesia outweighs the occasional disadvantage of having relaxation wear off before the termination of the surgery.

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During a litholapaxy, a Ravich instrument jammed, and the operator was obliged to do a cystotomy to remove not only the stone, but the instrument as well.—Abraham G. Fleischman, Des Moines.

Some Physiological Considerations of Heart Failure

ROBERT C. KIRK, M.D.

IN this contribution an attempt will be made to outline briefly some of the underlying physiological mechanisms which serve to explain various manifestations of heart failure. Such an attempt must unfortunately include controversial matters, but the reader will be made aware of the most generally accredited concepts of the present day. Although Withering's book "An Account of the Foxglove and Some of Its Medicinal Uses," was published in 1785, it remains an authoritative and scarcely equalled text on the therapeutic indications of digitalis, the prime drug in the treatment of heart failure. However, there is a surprising amount of confusion among physicians as to the actual diagnosis of heart failure. It is hoped that the following information will tend to clarify this situation.

When the compensatory mechanisms are inadequate, and actual circulatory failure develops, the heart is said to be decompensated. The failure in the circulation may be acute. The cardiac output may fall below a necessary minimum, with marked rise in venous pressure and venous engorgement noted in the peripheral veins but with no obvious edema. Such failure may be seen in sudden dilatation and hypertrophy of either or both ventricles. Cardiac decompensation may develop slowly and progressively. Raised venous pressure with visceral engorgement and consequent edema are predominant and the condition is called congestive heart failure. The signs and symptoms noted include breathlessness, particularly at night, difficulty in breathing when lying down, cough, and swelling of the legs and abdomen. The venous pressure is usually raised, the liver is enlarged, and pulmonary edema is present. The heart rate is fast and may be irregular in rhythm. The mucous membranes and nailbeds show cyanosis.

DYSPNEA AND ORTHOPNEA

Dyspnea or labored breathing implies the use of the accessory inspiratory and expiratory muscles. It occurs when the volume of air breathed becomes more than a certain proportion of the maximum amount which can be breathed. It is ordinarily the first and often the last subjective manifestation of heart failure. Because the symptoms and signs of pulmonary and cardiac insufficiency mimic each other so closely, being dyspnea, orthopnea, cyanosis, and cough, brief mention should be made of a recent con-

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tribution on this subject.¹ Differentiation can be greatly simplified by two tests. The venous pressure is not elevated and the circulation time is not increased in uncomplicated obstructive emphysema and pulmonary fibrosis. The reverse is true in cardiac insufficiency. Dyspnea usually causes the patient more distress than all the other symptoms combined. For the purposes of clarity dyspnea on exertion should be distinguished from dyspnea at rest as the latter includes such well known phenomena as orthopnea or inability to breathe lying flat, and paroxysmal dyspnea, or cardiac asthma. Because of the underlying similarity of these conditions the explanation of orthopnea will be made because it has been a more easily demonstrated clinical problem. Several explanations of orthopnea have been advanced, but the following paragraph is an attempt to point out the fallacies inherent in most of them and to show reason for accepting the work of Tinsley Harrison and his associates from Vanderbilt University.²

Because there is no difference in the arterial saturation of the blood in the recumbent and the upright postures, because the known diminished cerebral flow in anemia and shock are not accompanied by orthopnea, because there is no significant change in cardiac output in the two positions, it would seem that the best explanation of orthopnea rests on the known decrease in vital capacity and increase in ventilation which usually occurs when a patient with cardiac disease changes from the sitting to the recumbent posture. The decrease in vital capacity is dependent upon an increased degree of pulmonary congestion due to a re-distribution of blood in the lungs from the lower parts of the body. The increase in ventilation results from a reflex from its site of origin in the congested lungs through the vagus to the respiratory center. This reflex causes rapid breathing and greater ventilation per minute and en-

croaches still further upon the respiratory re-
 ventilation
 serve by increasing the quotient $\frac{\text{ventilation}}{\text{vital capacity}}$.

Paroxysmal nocturnal dyspnea or cardiac asthma is occasionally the first symptom of beginning heart failure and its recognition as such is of the greatest importance to the patient. It is at this point that the physician can render the utmost service. Occurring as it does in the middle of the night awaking the patient from a sound and apparently restful sleep, its explanation would seem paradoxical to that of dyspnea on exertion. Actually from what has been already stated about orthopnea it is apparent that in deep sleep a more unfavorable position of decreased vital capacity may be assumed for a greater length of time, which combined with a marked lowering of the blood pressure, effects an increase in the ventilation rate which does not arouse the patient until he is desperately short of breath. The anxiety attendant upon the awaking may be at times so great as to result in overactivity to such an extent as to cause pulmonary edema with possibly death from drowning in these secretions. For this reason the use of heavy sedation in "cardiacs" who do not have the benefit of adjustable hospital beds is to be routinely condemned.

SINUS TACHYCARDIA

Until recently³ all rapid heart action has been assumed to be the cause of myocardial failure. This has been the result of the important influence men like James MacKenzie and Sir Thomas Lewis have had on cardiac thinking. This reasoning was based on the belief that the beneficial action of digitalis in such cases was to be attributed solely to its ability to reduce the ventricular rate—a pharmacological result actually obtained only in cases of auricular fibrillation with rapid rate. Empirically many physicians believing in this major premise have continued to give large doses of digitalis even to cases with regular rhythm tachycardias in the belief that it certainly is the only drug that might be of value in possibly preventing myocardial failure. Sight has been lost of the fact that when arterial pressures fall due to primary vasodilatation such as occurs in hemorrhage, the heart accelerates and strives to restore arterial pressures to normal. In such circumstances a therapeutic effort must be directed not toward slowing the heart, but toward improvement of the adverse factors in the peripheral circulation, of which tachycardia is but a physiological result. This compensatory acceleration is described by Wiggers⁴ as follows: "Dynamic studies have shown that the faster the heart beats, the more the period of diastolic filling is cut short and the more the systolic discharge is decreased. However, calculations show that this decrease

is more than compensated for by the cardiac rate, up to 200 per minute, so that the minute output steadily becomes greater. It is obvious that this compensatory acceleration must not be disturbed. To do so would cause a drop in blood pressure sufficient, perhaps to endanger life itself. "Fortunately there is no medicinal agent by which a compensatory sinus tachycardia can easily be abolished, otherwise many a patient with serious heart disease would have been helped prematurely to the grave through kindly intended but misguided treatment" (Author's black-face). It has only recently been indubitably proven that a similar physiological situation exists in myocardial failure and tachycardia is the result of this failure.⁵

It is also now known that the beneficial action of digitalis is exerted directly upon the ventricular muscle rather than upon the pace maker.⁵ In tachycardias of abnormal rhythms special factors obtain and their treatment has been discussed in previous communications.⁶ Warfield⁷ deplores the use of digitalis in febrile diseases where it is not the heart that fails but the peripheral circulation that collapses, so that the heart has no blood finally to pump. This condition is analogous to secondary shock. It may therefore be concluded that myocardial failure must be carefully distinguished from tachycardia *per se* in order to establish a proper therapeutic regimen.

PAIN

Since William Harvey⁸ demonstrated to his king, Charles I, that the heart was "without a sense of touch" on a man whose chest wall had been partially removed by accident, to the first clinical diagnosis of angina pectoris in 1772,⁹ a long period of time passed without progress in the diagnosis of cardiac pain. It was not until 1878, that Hammer¹⁰ reported the first case of coronary occlusion. Obrastzow and Straschesko,¹¹ in 1910, were the first clinicians to correctly diagnose *ante mortem* and prove at autopsy the disease of coronary thrombosis by the nature of the chest pain in two cases. Since then innumerable articles have been written on the subject, and the diagnosis of angina pectoris and coronary occlusion is today a commonplace.

The perception of cardiac pain and its mechanism are still controversial subjects and a summary of the present day concepts should help to explain many of their peculiarities.

The perception of pain is dependent upon the presence and integrity of the sympathetic afferent nerves in the coronary adventitia and surrounding connective tissue. Transmission occurs over the middle and inferior cardiac nerves to the cervical sympathetic ganglia and by nerves running to the five upper dorsal ganglia and thence to the spinal cord over the white communicant rami and the posterior roots.¹² The

essential pathological physiology underlying pain in the heart is believed to be anoxemia of the myocardium.¹³ This may be brought about in the following manner:¹⁴ (a) by an obstruction of the blood channels (coronary artery disease), (b) by a deficiency in the quantity or quality of the blood (severe anemia), and (c) by an impairment of the mechanism, or pressure gradients, by means of which the blood is propelled into and through the coronary arteries (aortic valvular disease, paroxysmal tachycardia, and hyperthyroidism.)

In a recent summary of the experimental work underlying this view, Missal¹⁵ mentions the findings of Lewis and his co-workers who showed that the pain following the contraction of skeletal muscle during ischemia (tourniquet) was associated with actual dilatation of the blood vessels. But the bulk of experimentation favors the view that pain is due to chemical irritants arising from the reduction or cessation of the blood supply. The chief value of a good circulation resides in its ability to flush these substances away and not in its ability to supply oxygen. "The chemical product appears to be acid in character, or at least one that is additive with acid substances and is 'neutralized' by alkaline substances. In all probability it is some substance like lactic acid or phosphoric acid formed during the catabolism of muscular activity.—Katz". Gorham and Martin¹⁶ on the basis of 100 autopsied cases of coronary occlusion of whom 58 had precordial pain preceding the attack and 42 had none at all, have studied the question of mechanical factors in the causation of pain. By means of tridirectional tension on the wall of the coronary arteries of dogs¹⁷ they were able to regularly induce pain.

It may be concluded from these studies that cardiac pain is probably a combination of chemical and mechanical factors and the explanation for painless coronary occlusion lies in the lack of distensibility of the markedly sclerosed vessels providing a previous infarction has not occurred and destroyed the nerve pathways.

In addition to the conditions mentioned by Brill¹⁴, Herrick¹⁸ in the first American paper on the differential diagnosis of coronary occlusion, discusses the pain in pneumothorax and diaphragmatic hernia. Levine¹⁹ adds to this list hyperventilation syndrome which Soley and Shock²⁰ have so ably shown to be the possible physiological explanation for neuro-circulatory asthenia, although Isaac Starr²⁹ believes this syndrome may be explained by abnormally small circulations. Pain similar to angina pectoris has also been reported in diaphragmatic flutter.^{30,31}

CYANOSIS

The term cyanosis simply designates a blue color imparted to the skin or mucus membranes by a change in the chemical composition of the

blood which disappears when the blood is expelled from the tissue. Four factors should be kept clearly in mind:²¹

(1) The total hemoglobin content of the blood, which affects greatly the appearance of cyanosis. Thus a patient with a very high hemoglobin may be cyanotic and not have anoxemia, while a patient with a low hemoglobin may be suffering from anoxemia and still remain free from cyanosis. (It has been found that about 5 grams of reduced hemoglobin in each 100 cc. of blood is the threshold level at which general cyanosis appears.)²²

(2) The degree of oxygen unsaturation of arterial blood coming from aerated lung areas. This is affected by the oxygen tension in air, rate and depth of respiration, permeability of alveolar walls and partial obstructions of the bronchial tree.

(3) The proportion of blood passing from the right to the left side of the heart through unaerated channels. This is affected by congenital malformations of the heart, atelectasis, pulmonary infarction and lobar pneumonia. (This is usually an intense purplish cyanosis.)

(4) The oxygen consumption in the capillaries, which is influenced by peripheral vascular conditions. (Dilatation of the superficial venules and venous ends of the capillary loops.)

Cyanosis may or may not be present during congestive failure. It is more often seen in elderly patients with some chronic pulmonary disease, or in rheumatic heart disease. It is not common in uncomplicated hypertensive or syphilitic heart disease. The ashen gray type of cyanosis seen in acute heart failure such as follows coronary thrombosis is due to the diminution of the cardiac output and consequent increase in the amount of reduced hemoglobin in the venous blood.

Goldschmidt and Light²³ state that the faint reddish blue tint of the lips and finger nails commonly seen in heart failure is not associated with alterations of the oxygen content of the blood but is due to stasis in the hands because of the increase in venous pressure and consequent relative increase in the size of the venules (which contain bluer blood) as compared to the size of the capillaries. This factor alone accounted for the cyanosis in six of twenty cases of mitral stenosis recently reported.²⁴

EDEMA AND EFFUSION

Fluid is always present in the tissue spaces, but edema is present when there is more fluid than normally. The elaboration of edema in congestive heart failure is a complex phenomenon²² which is related to a low level of the serum proteins (lowered osmotic pressure), the increased venous pressure, the decreased rate of lymph flow, the resistance of the tissues to stretching, increased capillary permeability (anoxemia), and the intake of water and salts. The most important factor is the elevation of the pressure in the capillaries which increases the tendency

of water to pass into the tissue spaces. If low serum proteins resulting from malnutrition, hemorrhage, excessive urinary excretion (proteinuria), or severe liver diseases are excluded; as well as venous stasis resulting from varicosities of the extremities, cirrhosis of the liver, lymphatic block; also excessive ingestion of water or salt; and damage to the capillary wall as in burns, freezing and allergic states;²⁵ edema may reasonably be attributed to cardiac failure.

In addition to dependent peripheral edema and passive congestion of the visceral organs, a very common finding in chronic cardiac decompensation is right sided pleural transudation. An excellent working explanation for this is found in an article by William Dock.²⁶ By careful anatomical measurements he has found that the venous outflow from the right lung in the right lateral recumbent position (a favorite with cardiac individuals) must be lifted 10 centimeters or more to reach the left ventricle and that from the left lung, when in the left lateral position, need be lifted only 5 centimeters. Therefore, the average venous pressure needed to maintain the flow of blood will be much higher in the right lung than in the left even if the individual spends equal periods lying on the two sides.

In treatment of this condition one must keep in mind the fact that this type of edema may be a combination of minimal alterations in many factors for it has been shown^{25,33} that a reasonably good correlation does not exist between the presence of edema and changes in any of the above factors. Thus the problem results in a complex therapeutic regime which includes the reduction in capillary pressure, the limitation of fluids and sodium chloride, the restoration of the hemoglobin level, and adequate protein ingestion. The reduction in capillary pressure by restoring compensation is accomplished in many ways.²⁷ These include restriction of activity, that is, by lessening the work of the heart, by digitalis, by removing pleural and peritoneal exudates, by reducing weight and by the use of diuretics.

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The deficiency of Vitamin C present in tuberculosis may be compensated by administration of a large amount of ascorbic acid. It must, however, be emphasized that among the injurious factors to which tuberculosis gives rise in the system, Vitamin C deficiency is only one and it is a fatal error to suppose that administration of Vitamin C can have a decided influence on the tuberculosis process or makes general treatment unnecessary. On the other hand, Vitamin C is a useful adjuvant to hygienic and dietetic therapy and artificial pneumothorax. It is best given intravenously.—E. Melzer, *Deut. Tuber. Blatt*, 1938.

Early Forms of Neurosyphilis

JOSEPH L. FETTERMAN, M.D.

THE first aim in any consideration of syphilis is prevention; the next is the adequate treatment of the initial stages. Towards these goals, the campaign sponsored by Surgeon General Parran¹, with the splendid help of the Cooperative Clinics², is making headway. The collaboration of the medical profession as a whole should reduce the ravages of syphilis tremendously, as has been demonstrated in Sweden³.

Until the ideal of eradication will have been attained, the practicing physician must face the important problem of neurosyphilis. For, next to the menace of contagion belonging to the primary and secondary stages, it is neuroleses which dominates the clinical scene. The spirochete of the twentieth century has relatively spared the surface regions, only to invade more frequently the tissues of the brain, the cord, and their coverings.

Neurosyphilis is of vital importance for two major reasons: its frequency and its seriousness. Ravaut⁴ states that the large majority of patients with syphilis have involvement of the nervous system at some stage of the disease, although the percentage which becomes clinically active is estimated to be around 15 per cent. Moore's⁵ excellent modern textbook gives a higher incidence: among untreated luetics, 40 per cent show clinical evidence of nervous involvement. The prevalence of neurosyphilis may be inferred from the figures of Stokes⁶ and from Sezary's estimate that some 64 per cent of patients attending a syphilis clinic showed involvement of the nervous system. Coupled with the high incidence of nervous system syphilis is its seriousness. Tragic as may be the individual's suffering whose face is disfigured by a saddle nose, and distressed as may be the patient troubled by bone or visceral lues, such calamities usually do not compare with the crippling character of tabes or the wide social disturbances created by paresis. When one stops to consider that some 10 per cent of patients in state hospitals (Moore and Merritt)⁷ are there because of some form of neurosyphilis and that these patients have undoubtedly shown serious personality changes which have brought catastrophe to their families, we realize the extreme practical importance of syphilis of the nervous system.

So serious are the disabilities and so resistant to therapy are the late stages of this disease

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that more attention must be paid to the earlier forms. The concept of general paralysis of the insane and of locomotor ataxia have been significant in the historical development of this subject. Such designations apply to late and often irreversible pathologic changes of the nervous system. They are to syphilis what consumption with extensive cavitation was to pulmonary tuberculosis. To wait for the diagnosis of paresis in the "Napoleonic stage" may mean Waterloo for the patient. To obtain the maximum benefit with the minimum risk, neurosyphilis must be recognized and treated early, as today tuberculosis of the lung is treated before extensive spread and cavitation have taken place.

THE PRECLINICAL CONCEPTS OF NEUROSYPHILIS

The need for attention to the early stages is not a new concept. Ravaut has devoted his professional career to this study. In 1903, he published his first observations, based upon routine spinal punctures in all stages of syphilis. He found that the spinal fluid of certain patients in the chancre stage showed abnormality, while almost two-thirds of all patients in the secondary stages showed distinct pathologic changes in the spinal fluid. These abnormalities range from a slight increase in cells and protein to a marked cellular reaction, high protein, positive Wassermann, and positive colloidal gold curve. Ravaut's findings have been confirmed by many observers. Says Moore, "Invasion of the nervous system by the *Treponema* probably occurs in all patients with syphilis . . . and takes place within the first year of infection."

Syphilographers believe that the nervous system is attacked during the septicemic stage of the disease. Spirochetes course through the blood stream and may lodge in the capillaries of the larger blood vessels (*vasa vasorum*), while others may actually invade the parenchyma of the brain, the nerve roots, or meninges. This invasion evokes a meningeal reaction which is responsible for the changes in the spinal fluid. Such a reac-

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tion occurs in over two-thirds of the patients during the first two years of syphilis.

The majority of individuals thus affected show no clinical evidence of nervous system invasion. A few may exhibit headache and neck rigidity. Some may even show clinical signs of involvement of one or several cranial nerves. For example, one may see, during the secondary eruptive stage of syphilis, ptosis of the eyelid, diplopia due to paralysis of an extra-ocular muscle, or even facial paralysis. Such cranial nerve symptoms are caused by a syphilitic inflammatory reaction at the base of the brain. In rare instances, the invasion of the central nervous system shortly after the cutaneous manifestations is fulminating and may even prove fatal. Such a rapid and overwhelming termination in the early stages of syphilis is illustrated by a thoroughly studied case reported by Sezary.

A man of 40 developed an extensive rash one month following the chancre. Forty-five days later, this patient suffered an acute hemiplegia and died very soon after this incident. The autopsy revealed thrombosis of the left Sylvian artery, which vessel was involved in an extensive arteritis. The histologic study of the brain and cord showed spirochetes in the parenchyma and a meningeal cellular reaction.

Such a catastrophe is rare. It is far more likely that the early reaction clears entirely. The changes in the nervous system may disappear as completely as do the skin eruptions of the secondary stage. Among the thousand or more patients whom Ravaut studied over a long period of time, he had the opportunity to follow the course of those who showed serologic changes early. Of those who manifested slight abnormalities, many cleared up entirely, as established by re-examination in one to 30 years. On the other hand, many of those who showed extensive changes in the spinal fluid were destined to tragic consequences. In this latter group, which he labeled "patients with complete changes", 50 per cent manifested serious clinical involvement even after they had had intensive chemotherapy.

Ravaut designated these changes as biologic and preclinical. The concept of preclinical syphilis has been confirmed in America by Moore, Stokes, and by the other collaborators who have gathered such fine statistics in their Cooperative Clinic studies. Moore applied the term "paretic formula" to the spinal fluid abnormalities in which the cell count ranges between 50 and 100, the globulin 4 plus, the Wassermann 4 plus in all dilutions, and the colloidal gold curve—5555432100. According to Moore, these patients, though asymptomatic, are in potential danger of developing serious difficulties at a later stage.

The menace to such patients arises from the fact that the spirochetes which have once invaded

the nervous system may not have disappeared entirely. Indeed, it is likely that nests of spirochetes occupy the vasa vasorum where they may remain dormant for years, or else incite a slow, insidious reaction. Gradually, they may develop a thickening of blood vessels, infiltration of meninges, changes in nerve roots and spinal cord, of a considerable degree. (Hassin⁸, Freeman⁹). Yet, while such pathologic advances take place, there may be no clinical evidence whatsoever. The disease may be biologically active, but clinically silent. We have evidence of this continued activity from the spinal fluid studies, from autopsies done because of sudden death from other causes, and from patients who may die of a vascular accident. The autopsy then shows unmistakable evidence of a chronic process, though the deceased had not offered any complaints during his lifetime.

The following case history is illustrative of a sudden exitus:

A. B. was an apparently well man who reported to work as usual. He was seen busily engaged in the night shift at one time, but an hour later was found dead—sprawled on the ground. Because of the circumstances attending this sudden death, there was a suspicion of electrocution. However, careful studies showed no source for an electric shock.

A complete autopsy revealed pathology localized to the brain. The cause of death was an extensive subarachnoid hemorrhage. Histologic studies, done by Dr. Francis Bayless of the Institute of Pathology, Western Reserve University, and substantiated by Dr. Joseph H. Globus of New York, revealed a widespread meningeal exudate and marked arteritis. The vessels showed intimal proliferation, with occlusion of small branches as well as exudate in the adventitia and the meninges. Dr. Globus and Dr. Bayless interpreted these changes as luetic and having existed months or years. Six months after the autopsy was done, we obtained a history that this patient had had a 4 plus Kahn Test, twice confirmed, in 1934. Apparently, the initial clinical symptom was an extensive subarachnoid hemorrhage. The first sign was the last and fatal sign of this disease. Like a neglected battery, which may run down slowly and then stop "dead" suddenly, so the pathologic changes in the nervous system may progress silently until a sudden catastrophe announces the clinical stage of the disease.

Dr. Bayless, in reviewing some of the material at the Institute of Pathology, found seven cases with sudden development of symptoms which led to death in the course of days or were immediately fatal. The autopsy in each case revealed extensive arterial, meningeal, and parenchymatous changes of syphilis of the brain of long standing.

EARLY CLINICAL SIGNS

In the majority of patients, the disease does not develop symptom-free to a catastrophic end. On the contrary, many patients have symptoms which are indicative of the gradual extension of

the luetic disease. These manifestations, however, are sometimes mild or so common that they are not distinguishable from every-day complaints. Consequently, they may escape recognition as the warning signals of an approaching paresis or tabes. Time usually establishes their sinister significance. Stokes' comprehensive book describes thoroughly this dynamic concept. In a table called "An Approximate Chronology of Neurosyphilitic Signs and Symptoms", Stokes lists a series of complaints of mounting gravity. At the beginning, during the first few years after luetic infection, there are headaches and neurasthenia; then, more critical symptoms develop, ending, in 20 to 40 years, in such severe conditions as marked ataxia, apoplexy, or severe mental deterioration. The concept of increasing symptoms in paresis has been well set forth by Prinz-Burger¹⁰ in a monograph entitled, "De Beginnende Paralyse". This author lists many stages, like mounting steps, before true paresis is finally reached. He mentions periods of asthenia and somatic complaints, episodes of depression, emotional changes, and hypomanic moods, as precursors of the final demented form of paresis.

CLINICAL OBSERVATIONS

During the past ten years, I have had occasion, in my private practice, in the Neurologic Clinic and wards of the Lakeside Hospital, to examine patients who presented minor neurologic disorders which proved to be the early manifestations of neurosyphilis. Such symptoms were of many kinds, depending upon the site which happened to be involved. Space permits mention of only a few of the common symptoms.

A. Headaches: It is well known that patients may complain of considerable headache during the secondary stage of syphilis. A review of the records of patients who have been diagnosed as paresis shows that such individuals not infrequently have had unexplained periods of intense headache lasting for hours or days.

Y. Z., a man in the late fifties, had been troubled by episodes of headache over a period of years. These were intense, kept him awake during the night, and did not respond to the usual medication. Finally, an episode of headache was attended by a period of speech disturbance. Patient could not express himself well. The examination showed a 4 plus blood Wassermann. The spinal fluid showed a pressure of 250mm. of water, a cell count of 300, globulin 3 plus, Wassermann 3 plus, and a slightly altered colloidal gold curve. The diagnosis was obviously syphilitic meningo-vascular disease. Because of a previous coronary attack, it was deemed unsafe to use malaria. Treatment with tryparsamide, mapharsen, and bismuth resulted in a relief of symptoms.

B. Attacks: Attacks or spells may come from a great variety of causes. In this connection, I have found that such attacks may be promoni-

tory of a major vascular or parenchymatous brain change. These include not only convulsions, but brief episodes of confusion with loss of awareness of one's surroundings. Such experiences may be called attacks of hypoconsciousness. The person thus affected may continue to walk automatically or to drive, but he is in a daze, uncritical of his performance and unable later to recall it. These attacks of hypoconsciousness are similar to automatic epileptic equivalents.

In 1938, on the service of Dr. Wearn at Lakeside Hospital, I examined a man, W. G., who was hospitalized because of leg weakness. He showed signs of atrophy in the thigh and calf muscles, accompanied by hyperactive reflexes. The signs suggested an early luetic change, with a syndrome of amyotrophic lateral sclerosis. While he was receiving routine treatment in the clinic, he reported several peculiar episodes. He stated that, while driving his car, he would become blank and apparently lose track of time for a period of minutes. This constituted a warning of a cerebral vascular development. This symptom plus the spinal fluid changes which belong to the paretic formula indicated that chemotherapy was insufficient and that fever therapy must be used.

An interesting case history which illustrates a preparetic syndrome is the following:

Mr. D. W., age 37, was referred in 1933 by his physician, Dr. S. Kamellin. In the spring of 1933, the patient had had one convulsion as a result of which he was taken to an emergency room. Here, a blood test was made, revealing a 4 plus Wassermann.

On the basis of several positive blood tests and irregular pupils, this patient was given a course of neosalvarsan. Under routine treatment, Mr. D. W. was free of convulsions, but began to show slight changes in personality. The family reported that he had formerly been friendly and gracious, but had now become quick, irritable, and quarrelsome. These disagreeable traits occurred occasionally, yet they were significant. The patient was hospitalized and the spinal fluid examined. The cell count was 11, globulin 4 plus, Wassermann 4 plus in all dilutions, and the gum mastic curve 5554310000. At the time of the examination, this patient was keen, had good memory, showed no speech defect, and no hallucinations nor delusions. The one convulsion and episodes of slight personality change might be looked upon as preparetic. This patient was inoculated with malaria and allowed to have eight chills. Later, he was given a course of tryparsamide and bismuth. For almost five years, he has remained clinically well.

This case history is significant in calling attention to (1) the importance of a convulsion as the warning signal of the early vascular change which occurs in paresis, (2) the development of the disease during routine chemotherapy, and (3) the prompt and, it is hoped, permanent response to malaria.

C. Neurotic States.—Stokes mentions "neurasthenia, insomnia, phobias, and weakness" as some of the early symptoms occurring in neurosyphilis. Prinz-Burger reported case histories in which asthenia and physical complaints constituted forms of early paresis. Such reactions may represent vegetative symptoms caused by in-

involvement of the hypothalamus by the spirochetal invasion. Apparently, clinical symptoms from this change may precede cortical damage.

Such early neurotic-like reactions are exemplified by the case of Mrs. D. H.

This patient was a young married woman of 29, who consulted me in 1931, complaining of tiredness, self-consciousness, and unwillingness to visit people. Formerly confident and socially-minded, she felt uneasy and preferred staying home to accepting invitations of all kinds. She became apprehensive and somewhat sleepless. The physical examination was negative except for unequal pupils. A routine blood Wassermann was 4 plus. Because of the tell-tale testimony of the unequal pupils, a spinal fluid examination was done. This showed a 4 plus Wassermann in all dilutions, 20 cells, and a paretic gold curve. She was inoculated with malaria and allowed to have 12 chills. This was followed by a course of tryparsamide and bismuth. The therapeutic result was excellent. During the eight years which have followed treatment, this patient has been free of mental symptoms of paresis.

When first seen in my office, her symptoms were not different from a mild anxiety state. The pupils and routine blood test gave a clue to the preparetic nature of these nervous symptoms.

Because of the importance that we have attached to unequal fixed pupils, it is appropriate to call attention to the innocent "tonic pupils" described by Adie and Holmes. Such abnormalities, of course, are not due to syphilis.

D. Neuritides and Neuralgias.—Inasmuch as the spirochetes may have attacked any portion of the nervous system, it is not at all surprising that certain patients will manifest pain symptoms localized to a radicular or peripheral nerve distribution. Involvement of one or more cranial nerves is not rare either during the secondary stage or some time in the tertiary phase of syphilis. Less frequent and therefore more likely to be neglected are inflammatory disturbances along the nerve roots in the cervical, thoracic, and lumbar regions. The resulting symptoms resemble those of an intercostal neuritis or may be quite similar to a typical brachial or sciatic neuralgia. Only a complete clinical examination and a spinal fluid study reveal the luetic etiology.

Mr. H. J., a male adult of 48, consulted me early in 1938 complaining of a severe burning pain in the left supraclavicular region. The past history was that of excellent health, with no knowledge of venereal infection. One year previously, this patient was troubled by an eruption of tiny blisters over the clavicle, which had dried and which were followed by pain. The pain had grown steadily worse. Later, there developed some numbness in the lower extremities and occasional jerking movements during sleep.

Aside from hypesthesia in the left supraclavicular area, the examination revealed irregular pupils, which did not respond to light. Both knee jerks were hyperactive, and there was a questionable Babinski bilaterally. The blood Wassermann was 2 plus, the exclusion test 4 plus. The spinal fluid pressure was 180 mm. of

water, normal dynamics; the cell count was 13, the protein 97 mg., the Wassermann 4 plus in all dilutions; the gum mastic 5543221000.

In the light of these findings, it appeared that we were dealing with an early radicular form of neurosyphilis, with evidence of more extensive early involvement of the nervous system.

It was therefore thought best to use fever therapy. He was inoculated with malaria and allowed to have five chills, supplemented by six chills with intravenous typhoid. He withstood this treatment quite well. Later, he was given a course of tryparsamide and bismuth.

This patient has been relieved of the pain to a large extent and there has been a general improvement in his other complaints.

About the same time, I saw another patient, A.B., on the service of Dr. H. N. Cole. This was a man of 45, who complained of symptoms typical of sciatic neuralgia. The examination revealed tenderness along the nerve trunk and loss of ankle jerk. This symptom had developed during the routine use of bismuth and arsenic. Indeed, there was a suspicion that perhaps trauma from injection may have caused this symptom.

The spinal fluid, however, showed marked abnormalities with increased cells and protein, a positive Wassermann, and a tabetic gold curve. The pain in the leg was considered as nerve involvement in the cauda equina, perhaps a pre-tabetic manifestation. This patient was given a course of malarial therapy, resulting in relief of the sciatic symptoms.

E. Other Early Signs.—Space does not permit an extensive consideration of other early manifestations. One must remember particularly that a common cause is an arteritis and that the symptoms will depend upon which blood vessel is involved. One of the most unusual early symptoms is the occurrence of a sudden paraplegia due to a thrombosis in the ventromedian or anterior spinal artery of the cord. Such a case was seen in consultation with Dr. C. W. Thomas at Warren, Ohio. Anti-luetic therapy brought about a remarkable improvement. Transitory hemipareses and hemiparesthesias, occurring in younger people, are well recognized as warnings of possible luetic vascular disease.

THERAPEUTIC CONSIDERATIONS

It is the opinion of all authorities on syphilis that every patient who contracts this disease should have a spinal fluid examination at one time or another. This may be done within six to eighteen months after the initial infection, though many writers recommend the end of the third year as the critical time. If the spinal fluid be negative, then the individual is reasonably free of future neurosyphilis. If the spinal fluid is positive, it should constitute a danger signal. Particularly significant are the complete changes referred to as the "paretic formula". If the spinal fluid shows these marked changes, then the patient may be considered as having an asymptomatic or preclinical type of neurosyphilis. The program of treatment must then be modified in accordance with these findings. It is the practice

of many authors to continue with routine arsenical medication and bismuth and then to check the spinal fluid. If the abnormalities of the fluid have not been altered by the routine treatment, then fever therapy, followed by tryparsamide, is indicated. This is advisable even if the patient is entirely symptom-free, because over 50 per cent of such patients may develop the more serious types of tabes or paresis.

Likewise, if the blood Wassermann is persistently positive, despite routine neosalvarsan, a spinal fluid study should be made. The persistence of the Wassermann reaction may be correlated with preclinical neurolues. There are many patients with neurolues who have no knowledge whatsoever of the source and time of the initial infection. If patients are troubled by intense headaches, attacks which may range from hypoconsciousness to convulsions, peculiar neurotic symptoms, or unexplained neuralgias, a careful clinical study is indicated and this requires not only a blood test but a spinal fluid examination as well. For, even if the blood Wassermann be negative, a spinal fluid study may reveal the cause of the symptoms. According to the Cooperative Clinic statistics,¹¹ the blood Wassermann may be negative in 30 per cent of patients who have positive spinal fluid findings. One may infer, from the foregoing remarks, that the examination of the spinal fluid is a vital method in the detection of the early forms of neurosyphilis. Indeed, an early "L.P." may save a late "G.P."

SUMMARY

In view of the prevalence and serious significance of late neurosyphilis, attention is directed to the early biologic manifestations which attend the invasion and progress of syphilis in the nervous system. As emphasized by Ravaut and Sezary in France and Moore and Stokes in the United States, involvement of the nervous system may be detected in its preclinical stages. Case histories are reviewed illustrating preparetic and pretabetic forms of neurosyphilis. The recognition of such early stages depends upon a clinical examination and particularly upon early and thorough spinal fluid studies.

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Repeated Convulsions in Children

Each of the children selected for this review has as a chief complaint "convulsive seizures" or "fits." The descriptions of the attacks varied somewhat but were of general epileptiform nature, either grand mal or grand mal plus petit mal. There was one exception in which the seizure was of a tonic type. Occasionally there was a history of a focal origin of the attack.

The pathologies demonstrated in 15 of the 22 cases were as follows:

Condition	Incidence
Intestinal Parasites	2
Diabetes	1
Hyperinsulinism	1
Telangiectasis of Parietal Bones	1
Fracture of Skull with Extra-dural Hemorrhage and Pontine Hemorrhage	1
Right Frontal Lobe Neoplasm	1
Cerebellar Neoplasm	1
Cortical Atrophy, Internal Hydrocephalus or Porencephaly as Demonstrated by Encephalograms	10

Pendergrass, Southard and Thom, and others have demonstrated gross cerebral pathologies by encephalographic studies and post-mortem examinations. Every neurosurgeon has seen gross changes in the brain, its vessels or coverings while attempting to relieve a convulsive disorder of focal nature.

As we have said before, we are discouraged at times because so few of the patients investigated have lesions even when demonstrated that are amenable to treatment. You will probably ask: "What has been gained as far as the individual patient is concerned even though a probable organic cause for the convulsions has been found, if the attacks cannot be relieved?" In diseases as in most other things we fear most that about which we know least. Each time I hear the diagnosis of idiopathic epilepsy I am reminded of the definition of idiopathic which the late Dr. M. Smith made while in a facetious mood—"Idio—I don't know; pathic—a damn thing about it." It has been our experience that the parents of these children can much better accept the situation if some tangible condition is explained or demonstrated to them as to the cause of their child's attacks, than to supply a diagnosis the meaning of which they obtain chiefly from the lay press or the family medical book.—Jess D. Herrmann, M.D., Oklahoma City; Jour., Oklahoma S. Med. Assn., Vol. XXXII, No. 11, November, 1939.

Artificial Fever Treatment in Infants and Children

Methods, Indications and Results

WALTER HEYMANN, M.D., and LENA S. ENRIGHT, M.D.

THIS report is based on a study made during the last four years on the administration of artificial fever therapy to 66 patients, from 18 months to 14 years of age, who received more than 2,800 single treatments. Fever was produced by the intravenous injection of typhoid-paratyphoid vaccine or of pyrififer.*

METHOD

The initial dose varied according to the age of the patient. It contained, as a rule, a total of from 20 to 30 million typhoid-paratyphoid bacilli or from 20 to 30 units of pyrififer. Such a dose proved sufficient to raise the patient's temperature to 40 or 41 C. Treatments were given daily except Sunday, for from two to four weeks successively. Increasing doses must be given, with both agents, until a temperature of 41 C. is reached. This dose is then continued as long as it produces a temperature of 40.5 C. When the peak temperature amounted to only 38 or 39 C., the dose was doubled the next day. When large doses are used, however, in later stages of the treatment, twice the dose may be too much and an increase of one third or one half of the preceding dose may be sufficient. The rate at which the dose has to be increased varies considerably from patient to patient. It is interesting to note that a similar individual susceptibility is observed when fever cabinets are used for production of artificial fever. At the end of one course of daily treatments continuing for three or four successive weeks, the last dose may be from 20 to 700 times larger than the initial dose.

The resistance developed toward these agents vanishes between two and four months after daily treatments have been discontinued. A new course of therapy can therefore be instituted after such an interval, as often as is deemed advisable. We have repeated courses of three or four weeks of daily fever production from four to six times in the treatment of children suffering from neurosyphilis, and we believe that the favorable results obtained are due mainly to the intensity of the treatment given.

It would be difficult to claim a distinct superi-

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ority of one of the two fever-producing agents employed. The type of fever reaction produced by both is the same. The first, second or third fever episode is often delayed, prolonged and irregular and lasts occasionally as long as 36 hours. The subsequent reactions, however, are astonishingly regular. The temperature rises one and a half or two and a half hours after the injection is given, reaches a peak one or two hours later and gradually falls within the succeeding four to six hours. The rise and fall in temperature is somewhat slower when pyrififer is used than is the case with typhoid-paratyphoid vaccine, and the resulting fever period is consequently slightly longer with pyrififer.

The subjective and objective signs of discomfort, such as chills, headache, vomiting and cyanosis, whenever they occur, are observed just before the temperature starts to rise. They are seen less often in children to whom pyrififer is administered than in those to whom typhoid-paratyphoid vaccine is given, and they are most pronounced the first two or three treatments, often disappearing completely later on. When present, they continue for from 20 to 30 minutes and cease soon after the temperature has reached 38.5 or 39 C.

The procedure for taking temperature was as follows: Temperature was taken one hour after administration of the fever-inducing agent and every half hour thereafter for not more than two additional hours, unless the temperature had risen to 38 C. in the meantime. After the temperature had reached 38 C., the interval was reduced to 15 minutes until the peak had been reached (40 or 41 C.) and the temperature had descended to 39 C. At this point temperature

*The typhoid-paratyphoid vaccine contained 1,000 million B. typhosus, 750 million B. paratyphosus A and 750 million B. paratyphosus B per milliliter. It was obtained from Parke, Davis & Company. Pyrififer is a protein substance prepared from coli similar bacilli obtained from milk. It is standardized in units according to the number of bacilli used in its preparation, usually from 50 to 5000 units per milliliter. It was obtained from the manufacturer, Aristopharm, Basel, Switzerland.

Read before the Section on Pediatrics, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

was taken at hourly intervals until 38 C. was reached, after which time the routine order for temperature taking was observed.

Whenever the temperature rose to 40.8 C., blankets and clothes were removed from the patient completely and ice-cooled liquids were given by mouth. If in spite of these precautions the temperature reached 41.2 C., the patient was placed in a tepid tub bath the temperature of which was slowly decreased to 35 or 32 C. and below. Because a cool bath was far more effective in checking undesired increase in temperature, we did not have to use antipyretic medication.

The fact that we had at our disposal two different kinds of fever-producing agents was a distinct advantage. Several children who reacted poorly to typhoid-paratyphoid vaccine responded to pyrifin very well in the usual way. Furthermore, in some instances in the later stages of treatment with typhoid-paratyphoid vaccine when the required dose reached 5 cc. of undiluted vaccine, we were able to continue the course by mixing typhoid-paratyphoid vaccine with increasing doses of pyrifin and administering the mixture in one syringe.

With proper choice of the dose, temperatures between 40 and 41 C. can be obtained with an astonishing degree of certainty, and hyperpyrexia should never occur. If by some unpredictable error it occurs, however, the procedures described for checking the rise in temperature were found to be in full control of every situation.

No serious complication has been observed in our series of patients. Mild secondary anemia (hemoglobin 60 per cent and red blood cell count of 3,800,000) developed in one patient during the five weeks of treatment and was promptly relieved by iron medication. Thereafter we made it a routine procedure to administer daily from 1 to 1.5 gm. of saccharated ferrous carbonate during the whole course of fever treatment. Leucopenia (between 3,000 and 4,000 white blood cells) was observed in one patient with Still's disease and did not become worse in spite of continued therapy. Herpes labialis and urticaria occurred in eight and six patients, respectively, and did not require that the course of fever treatment be interrupted.

RESULTS

Sydenham's Chorea.—In our series were six mild, ten moderate and seven severe cases of chorea. The first definite signs of improvement were noticed, in all but two instances, within the first eight days of treatment. The average time required to cure the condition completely was 17 days, not including five children who had to be discharged from the hospital after from 21 to 29 days of treatment, with some choreic disorder still present.

We confirm, consequently, Sutton's¹ original

observation of the beneficial influence of pyretotherapy on chorea minor. We have seen remarkable improvement in children suffering from chorea even when the artificially elevated temperature did not reach 40 C. We therefore feel that it is not necessary to force pyrexia in chorea by the use of blankets and hot pads to the point where it is combined with too much discomfort.

There were five relapses among our 23 cases of chorea. Artificial fever therapy, accordingly, does not prevent the occurrence of relapse in patients with Sydenham's chorea.

The contention that the presence of carditis forbids the use of fever therapy can be denied. Seven of our patients had mildly to moderately active rheumatic cardiac involvement, and no harmful effect, judged clinically or by tests of the erythrocyte sedimentation rate, was ever observed.

Carefully controlled observations showed that a daily dose of even 4 gm. of sodium salicylate does not influence the production of artificial fever. Salicylates, therefore, can be administered with this type of pyretotherapy to children suffering from chorea and from acute rheumatic arthritis.

We believe that artificial fever therapy in its mildest but still effective form, as described here, is to be recommended as the treatment of choice for cases of chorea today.

Rheumatic Fever.—To 11 patients with acute rheumatic fever pyretotherapy was administered for from 8 to 29 days. The subsequent course of the disease was followed in these patients for three or four years. Five of the patients had a mild, four a moderate, and two a severe degree of cardiac involvement. All but one had joint manifestations, and two had rheumatic nodules. In brief, our experience with these 11 children was that the disease behaved clinically just as well and just as badly and just as capriciously in them as in rheumatic children who did not receive artificial fever therapy. No influence was observed on the rate of decrease in the erythrocyte sedimentation rate. Visible and palpable rheumatic nodules persisted in patients to whom fever treatment was being given as long as in other patients, observed in the same year, to whom it was not. It is believed, therefore, that the observation that fever therapy has no influence on the occurrence of relapses in chorea is further evidence to support our opinion that hopes for the therapeutic value of fever in the rheumatic state are hardly justified.

Interstitial Keratitis.—Five children suffering from interstitial keratitis associated with syphilis received pyretotherapy in the manner described. In one of these children interstitial keratitis developed in the right eye six months after the

institution of artificial fever treatment for interstitial keratitis of the left eye. Our study is consequently based on six cases of interstitial keratitis.

Two patients responded to treatment rather dramatically and the disorder cleared up completely within the first eight days of treatment. In three other patients there was definite improvement, pains and photophobia disappeared and corneal opacity diminished in size within the first two weeks, although they failed to clear up entirely in spite of continued treatment. The sixth case, the relapse which occurred in the right eye, failed to show improvement.

Our observations taught us, furthermore, that the results obtained were not influenced by the age of the lesion, nor by antisyphilitic treatment administered previously to or at the same time as pyretotherapy. The beneficial action of artificial fever therapy is entirely unspecific and has more the character of a foreign protein therapy. The observation of one relapse also points toward the unspecific nature of artificial fever treatment. On the basis of our experience we believe, however, that patients with interstitial keratitis who do not show distinct improvement within from one to two weeks, with the usual conservative treatment, should be given the benefit of two weeks of daily artificial fever therapy. Some will be cured completely, some to a great extent, and apparently only a very few will not be benefited at all.

Neurosyphilis.—Eleven children with syphilis of the central nervous system received from four to six courses of artificial fever therapy; each course consisted of three or four weeks of daily treatments. Intervals between courses varied between three and twelve months. Specific antisyphilitic therapy was given during courses of pyretotherapy as well as between them. The serological results showed that artificial fever therapy has no influence whatsoever on the blood Wassermann reaction. The spinal fluid Wassermann reaction, however, became negative in 37 per cent of the cases, improved quantitatively in 18 per cent and failed to show improvement in 45 per cent. The colloidal gold curves were reduced to negative in 17 per cent, were lowered in 50 per cent and remained unchanged in 33 per cent of the cases.

Eight of the 11 patients were ill with asymptomatic neurosyphilis. The remaining three patients included one juvenile parietic, one taboparetic and one tabetic child. Improvement in mental and speech disturbances as well as in bladder symptoms was convincing. Pupillary symptoms, areflexia and optic atrophy which had progressed to the complete stage, however, showed no improvement in any instance. It should not be expected that completely degenerated nerves and

nerve nuclei will regenerate. Artificial fever therapy should consequently be started as early as possible in cases of beginning optic atrophy.

Encephalitis.—Encouraging results were obtained in one child suffering from what clinically corresponded to Schilder's disease. The illness had persisted for at least two months before pyretotherapy could be instituted. There was central blindness, central deafness, complete deterioration of any coordinated mental activity, some spasticity of the lower extremities with hyperactive reflexes, and a negative spinal fluid reaction. Eight days after artificial fever therapy was started, the child could see, four days later she sucked her thumb and tried to sit up, and after three weeks of therapy she could stand and walk and feed herself. She remained, however, mentally retarded, deaf and had febrile convulsions on different occasions thereafter. The lack of spontaneous recovery before treatment was started, together with the speed of improvement which took place afterward, made us feel justified in assuming some causative relationship between recovery and treatment. That deafness and mental retardation were not relieved might be due to the delay in starting therapy. Unless further experience proves the contrary, we believe that every child suffering from encephalitis in whom encephalitic symptoms persist beyond the febrile stage should be given artificial fever therapy without further delay.

Still's Disease.—Two girls with Still's disease were given daily fever treatments for one course of three weeks. In one patient, all joints involved, with the exception of the finger joints, were practically normal at the time of discharge from the hospital. The results with the second patient were not so good. After three weeks of treatment there was definite improvement in the swelling and stiffness in her ankles but very little if any in her wrists. Better results in both cases might have been obtained by additional courses of artificial fever therapy. On the basis of the favorable impression from these two instances, and until a more efficient treatment becomes known for this desolate malady, we advocate that intensive artificial fever therapy be tried.

Miscellaneous Conditions.—Entirely negative results were obtained in five cases of epilepsy, in four cases of bronchial asthma, in two cases of lipid nephrosis and in one case of hereditary tremor.

SUMMARY

1. Artificial fever therapy by intravenous injection of typhoid-paratyphoid vaccine and of pyriper is recommended as the method of choice for pyretotherapy in infants and children. The routine procedure is described. It permits repetition of from four to six courses of three or four weeks of daily fever treatments within a period

of two or three years, without any harmful effects for patients of this age group.

2. Of 23 cases of chorea, complete cure was accomplished in an average of 17 days in 18 cases. Artificial fever therapy had no influence on the occurrence of relapse. Rheumatic joints were treated with salicylates while fever therapy was given, because salicylates have no effect on this type of artificially produced fever. Presence of rheumatic carditis without heart failure was not a contraindication to pyretotherapy.

3. Artificial fever therapy neither aggravated nor helped the rheumatic state in 11 children.

4. Definite improvement was seen in five out of six cases of syphilitic interstitial keratitis. No further benefit was obtained after the second week of treatment; it is therefore recommended that artificial fever therapy in cases of this kind be limited to daily treatments for two weeks.

5. Eleven children with syphilis of the central nervous system were given from four to six courses of fever therapy, each course consisting of three or four weeks of daily treatments. Eight of these cases were asymptomatic. Improvement in mental and speech disturbances, as well as in bladder symptoms, was seen in one juvenile paretic, one taboparetic and one tabetic child. Pupillary symptoms, areflexia and completed optic atrophy did not improve. Serological results were satisfactory.

6. One very encouraging result was obtained in a patient with encephalitis, most probably Schilder's disease.

7. In two patients with Still's disease, remarkable improvement in the joint lesions was observed.

8. Artificial fever therapy in cases of epilepsy, bronchial asthma, lipoid nephrosis and hereditary tremor was of no value.

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SURGERY IN TUBERCULOSIS

Probably the most significant and far-reaching change which has come about in the tuberculosis hospital field is the trend toward surgical treatment of the disease. This has involved changes in design and equipment of the hospital, in the organization of the staff, in provision for nursing of surgical cases and development of closer relations with general hospitals. Wherever the tuberculosis hospital is not prepared to meet the demand for better operating rooms, laboratories and X-ray equipment the facilities of the general hospital must be utilized.—Hospital Management, Sept., 1939.

Paroxysmal Hemoglobinuria

In 1880 Rosenbach showed that an attack could be produced by immersion of a patient's feet in ice water for ten minutes (Rosenbach test). It was not until 1904, however, that the essential feature of the disease was discovered by Donath and Landsteiner, who developed the test so named for them. They showed conclusively *in vitro* that there existed a specific autohemolysin. The two phases of the reaction were shown to be (a) absorption by the erythrocytes of the lysin at a low temperature and (b) hemolysis of the sensitized red cells if complement is present. Donath and Landsteiner made the following observations on oxalated blood which had first been chilled and then heated:

Patient's cells+patient's serum $\Rightarrow$ hemolysis.

Normal cells+normal serum $\Rightarrow$ no hemolysis.

Normal cells+patient's serum $\Rightarrow$ hemolysis.

Patient's cells+normal serum $\Rightarrow$ no hemolysis.

The patient usually presents himself to the doctor with the complaint of voiding bloody or dark urine, variously described as the color of port or burgundy wine, coca-cola, brownish, black, or bloody. This usually is noted to follow exposure to cold or occasionally to follow exercise. There is usually a latent period from the time of exposure to cold to the passage of hemoglobin in the urine, during which time such prodromal symptoms occur as malaise, headache, abdominal cramps, backache, pains in the legs and sensation of chilliness. The actual paroxysm usually begins with a chill and subsequent temperature up to 104 degrees (F.) which is short lived. Then follows hemoglobinuria. The paroxysms usually last from two to four hours. The liver and spleen may be enlarged. There may be a mild jaundice. The blood pressure rises following the onset. The urine, besides hemoglobin, contains albumen, few or no red cells, the remaining routine findings being negligible. It is normal between attacks. An anemia follows the attack and about 10 per cent of the red cells are destroyed. There is an initial drop in the leukocytes with subsequent leukocytosis, and an increase in polymorphonuclear neutrophils. It is stated in the literature that there are cases of hemoglobinuria without symptoms and also cases of symptoms without gross hemoglobinuria. The following case is one of hemoglobinuria without symptoms—Joseph T. Phillips, Jr., M.D. and Paul Hogg, M.D., Newport News, Va.; Va. Med. Monthly, Vol. 66, No. 12, December, 1939.

Cystoscopy revealed a large stone in the vault of the bladder suspended from a suture. It somewhat resembled a swinging ceiling lamp.—Ralph L. Dourmashkin, New York.

Relation of the Thyroid Gland to the Total Man

DWIGHT M. PALMER, M.D.

THE structure of the thyroid gland is subject to great variation as it is observed in different individuals, in the same individual from time to time, and also in many cases in different areas of the individual gland at any given time. Boyd¹ (p. 785) states that the "structure of the thyroid is not fixed any more than the structure of the breast or endometrium is fixed".

The changes in histological structure and the concomitant physiological fluctuations make the definition and the classification of thyroid pathology very difficult. There are many arrangements of the latter, the simplest of which is the pathological classification of Boyd² (p. 508). He divides the groups of thyroid pathology into: (A) diffuse goiter with involution, (B) nodular goiter in which either hyperplasia or involution may be predominant, (C) diffuse goiter with hyperplasia.

This classification is only slightly different from that which the American Association for the Study of Goiter has formulated for the common varieties of thyroid disease:

1. Diffuse Goiter
 - A. With hyperthyroidism
 - B. Without hyperthyroidism
2. Nodular Goiter
 - A. With hyperthyroidism
 - B. Without hyperthyroidism

In this paper an attempt is made to review the recent opinions about the relation of the thyroid gland to the total person. Psychosomatic considerations are those facts and theories which deal with the totality concept in medicine. Such a viewpoint looks upon a psychosomatic unit, an individual, and his relationship with his particular environment. The individual person has two facets which we may observe—his body and his mind. These are aspects not parts. Mental activity is an aspect of adjustment to life and so is the histological picture and physiological activity of the thyroid gland. Both are conditioned by past experiences. The exact nature of the patterns in the cerebral cortex and the cellular structure of the thyroid gland may be considered as bits of crystallized experience. Thus from a psychosomatic viewpoint we are not interested in proposing some simple arrangement in which "the mind causes the thyroid to function" but seek to examine the total person in the total situation and to evaluate the position of the thyroid gland in this complex inter-relationship.

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In making use of Boyd's classification and attempting to study these groups from a psychosomatic viewpoint, certain preliminary observations may be made. First, there appears to be no possible psychosomatic relationships in group (A), i.e., diffuse goiter with involution. The general consensus of opinion is that this condition, which is also termed simple goiter or endemic goiter, is due to a deficiency of iodine in the soil and drinking water of a given locality. Second, there are some rather definite possibilities to be discussed under Boyd's group (C), i.e., diffuse goiter with hyperplasia. Third, the (B) group of this classification—nodular goiter with either involution or hyperplasia—is of such a nature that its exact significance is the source of much controversy. Many workers hold that the nodules are the important part of the glands which are so classified and that they are the source of the damaging chemical in thyrotoxicosis. But Boyd² (p. 502) holds that these nodules or adenomata may not be tumors at all but merely masses of thyroid tissue that are in a definite phase of the hyperplasia-involution cycle of the thyroid. One of the sub-types of this group is that in which the nodules represent a phase of involution of the gland and the remaining thyroid tissue, or at least a considerable part of it, is in the phase of hyperplasia. This histological picture is thought to correspond with what is known as the toxic nodular goiter. It is in the interpretation of the hyperplasia that psychosomatic considerations may be of importance.

To recapitulate it seems worthwhile to discuss the psychosomatic considerations of hyperthyroidism in two common clinical states: first, diffuse goiter with hyperplasia which is also known as Parry's disease, Graves' disease, Basedow's disease, or exophthalmic goiter; and second, nodular goiter with hyperplasia which is

also called toxic adenoma of the thyroid or toxic nodular goiter.

There are good reasons to believe that the same physiological mechanisms are at work in both types of cases. Crile³ states "There is no essential difference in the clinical expression of the hyperthyroidism associated with adenomatous goiters and the hyperthyroidism associated with diffuse goiters".

PHYSIOLOGICAL MECHANISMS

Crile⁴ has made extensive studies on the phylogeny (the racial history) of the thyroid gland. He believes that the brain and the thyroid gland have arisen together in the great forward move of evolution. He adds that one would draw the inference that the evolution of man involved the brain and its tool the hand, and also the gland that governs the rate of metabolism, namely the thyroid. Crile further states (p. 22) that "Man came over the bridge [of protoplasm] with a large thyroid but a blank matrix in his brain. . . . Ontogeny [the personal development of the individual] takes the blank matrix and records on it the web of civilized man". Thus the thyroid mechanism is much older than cortical mechanisms of the brain. The former has arisen with other tissues that collectively form a kinetic system which gives expression to somatic muscle patterns that are characterized by rapidity and complexity. The growth of mental mechanisms is a much newer phenomenon and while they may be shaped and channelled into adjustment patterns of the individual, they cannot as Crile says change the phylogeny which has brought forward the large thyroid gland. Thus from this developmental point of view there is a possibility for conflict between thyroid activity and mental patterns. Another important consideration is that the thyroid hormone helps to maintain the metabolism of the brain.

The essential function of the thyroid is to produce a hormone (or possibly several hormones) that maintains the metabolic processes at a rate that normally is varied to meet the changing needs of the body economy.

Means⁵ states (p. 48) "Life antedated the thyroid hormone. . . . But having once been evolved, the hormone retaliates upon the organism by driving it to live at a faster pace than would be possible without it." The thyroid hormone contains iodine and is apparently synthesized from that element. Thus the availability of iodine in the native soil and drinking water of any locality has a marked effect on the structure and function of the thyroid glands of the natives of that place. If the available iodine is low the gland reacts by hyperplasia.

The one known stimulant of the formation of thyroid hormone is the thyrotropic hormone of the anterior lobe of the pituitary gland. That this

thyrotropic hormone activates the thyroid is shown by histological and functional changes, e.g. hyperplasia of the gland, elevation of the basal metabolic rate and other evidences of hyperthyroidism. The anterior lobe of the pituitary appears to receive nerve fibers from certain groups of nerve cells in the hypothalamus and possibly also from the cervical sympathetics. The hypothalamus in turn is linked with the thalamus and the cerebral cortex although the detailed nature of these connections is not well known. The secretion of the thyroid also influences the anterior pituitary, thus placing these two endocrine glands in a delicate balanced relationship. If the secretion of thyroid hormone is deficient the pituitary is stimulated to produce more thyrotropic hormone.

To quote Boyd² (p. 501) "During life the thyroid is continually being acted on by stimuli of various kinds, chemical, bacterial and psychic which tend to induce hyperplasia. When the action of these ceases, involution sets in. The involuted gland may then become the seat of hyperplasia, only to be followed again by involution".

Thus the thyroid is to be viewed as a living tissue that is undergoing cycles of anatomical and physiological variation. Physiologically it is linked with both of the great coordinators of the body, i.e. the nervous system and the blood stream.

PSYCHOSOMATIC CONSIDERATIONS IN THE ETIOLOGY OF HYPERTHYROIDISM

A. Incidence of Hyperthyroidism. While simple or endemic goiter has a geographical distribution which corresponds very closely with a deficient amount of available iodine in the soil and drinking water such a distribution of cases has not been found for hyperthyroidism. Eberts⁶ states that the distribution of Graves' disease does not follow any geographical plan. Means⁵ (p. 325) writes "There is not much evidence that it [toxic goiter] is sharply related in its geographic distribution to simple goiter."

Hyperthyroidism occurs at any age but it is most common between the ages of 30 and 50. In a general way this age period is that in which the life pattern is subjected to its greatest frustrations particularly along the line of heterosexual and family adjustments. All workers have found the condition to be more common by a marked degree in the female sex.

B. Relationship of Hyperthyroidism to Civilization. Donnison⁷ holds that hyperthyroidism, of all clinical entities is most intimately linked with civilized society. He has never observed a case in an African native and has been able to find but a single case recorded in the literature. He states that the disease is not mentioned in the accounts of the natives of China or of South Africa and that it is uncommon in Ceylon and

in India. On the other hand it is not uncommon in the American Negro.

Crile⁴ (p. 89) writes "Hyperthyroidism is an excessive functional or pathologic stimulation of the entire mechanism of civilization."

C. Concepts of Etiology. Almost everyone who has studied the thyroid agrees that the etiology of hyperthyroidism is still a mystery. There are two general hypotheses about the matter. One group holds that it is a thyroid disease per se while the other contends that it is only one expression of a more general maladjustment of the entire individual. This paper is concerned with the second concept but it is necessary to state briefly the case for the first hypothesis.

Concept of Hyperthyroidism as a Thyroid Disease. This view is supported by a great many noted workers, e.g. Crotti,⁸ Hertzler,⁹ Sloan.¹⁰ It is well stated by Hertzler (p. 45) as follows: "The surgical treatment of goiter has produced abundant material capable of establishing beyond controversy the fact that the goitrous disease is from first to last a disease of the thyroid gland." According to this view the nervous disturbances of the individual are not causative of the hyperthyroidism but are the results of a neglected or undiagnosed state of hyperthyroidism. The proponents of this concept hold that the psychic traumata are not causative but are only incidents which serve to call attention to a previously existing hyperthyroid condition.

Concept of Hyperthyroidism as a Psychogenic Phenomenon or as a Neurotic Manifestation. It is not the purpose or intent of this paper to contend that hyperthyroidism is psychogenic. This concept is listed here because it is very important to point out that a psychosomatic viewpoint is not the same as a psychogenic, a psychological or a "psychic" viewpoint.

Psychosomatic Concept of Etiology. The psychosomatic viewpoint on the somatic side includes the possible action of chemicals, bacteria, parasites, physical trauma, physical heredity, etc. Thus it embraces all of these factors but it insists that they be considered as a part of the total individual-environmental relationship. The thyroid gland acts as an effector organ that secretes the thyroid hormone which in turn maintains the body metabolism at a rate that is consistent with the level of adjustment of the individual person in his particular environment. If the person is so constituted both by his physical heredity and by his peculiar environmental conditioning (his social heredity) that he is unstable and if external events threaten to make him more unstable, he will be stimulated to greater activity. This will appear on the psychic aspect as fear and frustration and on the somatic side as increased secretion of the thyroid gland. Crile⁴ states that in fight or flight, man fears

and reacts with every organ and cell in his body. Thus from a psychosomatic viewpoint hyperthyroidism is but one aspect of maladjustment of the total personality and there is justification in the suggestion of Moschowitz¹¹ that the term Graves' syndrome should replace the current Graves' disease.

Boyd² (p. 529) states "May the condition (hyperthyroidism) not be due to a far reaching disturbance of body metabolism from some unknown cause, as a result of which a demand is made upon the thyroid for additional secretion? At first the stored colloid is used up and this is succeeded by hyperplasia of the epithelium. If this be true, then the hyperplasia is compensatory and not causal, in which case the prevalent practice of removing a large portion of the struggling gland is hardly likely in the end to prove the best method of treatment." Puppel and Curtis¹² find that there is an increase in the mobilization, utilization and excretion of iodine in exophthalmic goiter. They are not certain whether the incipient thyroid hyperplasia precedes or follows this change in iodine metabolism. They state "However it is possible that the thyroid hyperplasia in hyperthyroidism is secondary to the increased loss of body iodine and that it is compensatory in an attempt to meet continued increased demand for utilizable iodine subsequent to consumption of the available stores."

To follow out this line of thought hyperthyroidism appears in a particular type of person as one of the aspects of maladjustment. This lack of adjustment is not of recent origin in the majority of cases although superficially it may appear to be so. These people may be said to be of a given constitutional type and the sources of these characteristics are to be found in both the heredity and in the environment.

Many observers have noted that there is some tendency for hyperthyroidism to appear in more than one member of a family. Some have suggested the possibility of heredity as a causative mechanism for this fact. Heredity is probably a minor factor and should not be separated from environmental conditioning which includes all of the individuated patterns that become habitual in time. This latter influence is sometimes called social or pseudo-heredity. If the early conditioning of the individual is faulty and if he thereby cultivates a feeling of disharmony with the environment and a sense of personal insecurity, it is possible that his strivings at compensation for his frustrations may entail hyperactivity of the thyroid.

The average patient with hyperthyroidism has been described by Moschowitz¹¹ as sensitive, sanguine, quick, restless, temperamental, overstimulated and emotionally unstable. The pulse is often rapid and the bowels move easily. The

patients are apt to be slender and underweight. There is a debate as to whether these characteristics are due to mild incipient, undiagnosed stages of the disease or whether these are other symptoms of a basic maladjustment of the total personality. Moschcowitz favors the latter view and has described individuals that he has observed over a period of years before they developed clinical hyperthyroidism. He states that for many years prior to their illness, none of these persons could be classed as normal from a psychosomatic standpoint. All of them were intolerant of their environments and the curves of their mental experiences showed wide excursions.

There are two mechanisms by which maladjustment may act on the individual as we look at him from the longitudinal viewpoint of the life history. Jelliffe¹³ has described these two mechanisms as (1) unconscious material that although not heavily loaded is active for a long period of time; and (2) unconscious material that is massive in intensity of action although it may operate for only short intervals.

In the case of the first mechanism the patient's maladjustments which spring from both his physical heredity and his early social heredity (habit formation) persist so as to become a way of living. Therefore no especial psychic traumata or activating or precipitating incident may be necessary for the hyperthyroidism to become clinical. The process of maladjustment may become progressively worse until the condition is diagnosed clinically. Means⁵ states that psychic traumata are not found in the history of all hyperthyroid individuals; in his series they were present in about 25 per cent of cases. But he further adds (p. 304) that "The actual percentage of cases in which these [activating] episodes are found is closely related to the diligence with which the history taker searches for them."

In the second mechanism, due to the patient's maladjustment he has a unique way of experiencing life's traumata so that events in certain situations constitute for him a peculiar threat to his existence. They are definite trauma to him but they may not appear so to an outside observer. Thus the psychic trauma may be the trigger event that is sufficient to bring forth definite clinical hyperthyroidism in a person who already has a latent hyperthyroid state as a part of a psychosomatic maladjustment. Eason¹⁴ writes "We may state at the very least that psychic trauma does something which for the first time reveals the actual presence of the disease."

D. Specific Personality Patterns.

1. The Formation of the "Type" (Graves' constitution). First it should be emphasized that even the earliest environmental conditioning may be superimposed on a physical type that has its

basis in true heredity. From the environmental standpoint, the early family relationships, particularly to the mother are of great importance. Eason¹⁴ states that "Primary toxic goiter is not liable to appear in those of easy going happy dispositions provided they have also had the good fortune to pass in happy circumstances the period of life during which the foundations of character, temperament and structure are being laid."

After analysis Lewis¹⁵ found the following mental traits and behavior peculiarities to be common in hyperthyroid individuals: intense emotional swings, inconstant love attachment, unexplainable fears and hatreds, frequent and often serious misunderstandings with members of the family, frightening dreams, nocturnal anxiety attacks, and unusual sensitivity with self-consciousness especially in childhood. The characteristics that Moschcowitz described were mentioned above.

The essential element in the personality appears to be that of insecurity. The individual fears that his ego will be unprotected and that it will suffer from environmental contacts. He is not sure about his place in the world and is markedly fearful of what may happen. He may express a strong sense of responsibility. Brown and Gildea¹⁶ believe that this sense of responsibility is born of the individual's attempts to protect, maintain and please his ego. Thus although outwardly these patients may seem capable and efficient and intensely interested in doing things, fundamentally this activity is due to an attempt to gain more security for themselves. In the final analysis they are really selfish individuals, but this quality is to be understood as a necessary and in this case desirable compensation for an unstable ego. Due to insecurity of the ego, these patients fear and are unable to stand disapproval. Hence they strive diligently and aim at perfection.

Conrad¹⁷ states that in some characteristic cases the sense of insecurity is due to pathological development in the normal process of attempting to establish independence of the mother. Due to several kinds of causative situations such as early loss of the mother, maternal over-protection, mother repudiation with inability to break away, these individuals lack the self-reliance to face life, particularly its heterosexual adjustments. As a result they show insecurity, fear and hatred which may appear in relatively undisguised childish patterns. Their fear of disapproval represents a fear of the loss of parental (usually maternal) approval. Jelliffe,¹⁸ who has long been an outstanding student of psychosomatic relationships, stated in a paper published in 1922 that hyperthyroidism is a specific stage of the parental complex.

These individuals go through life under ten-

sion, insecure and fearful. They have their own unique way of experiencing life, a way that is not apparent to a casual observer or to one that lacks insight in psychosomatic medicine. If events in life's series of situations shape up so that they may be termed psychic traumata they are such only because of the peculiar constitution and habit formation of these personality types.

2. The Precipitating Situation. (Often termed the "Psychic Trauma"). First it should be understood that according to a psychosomatic viewpoint the trauma may be somatic as well as psychic. It would be better to state that at least in most cases the trauma would be psychosomatic. For example, in addition to the chemical and other humoral agents that are released by severe infections there is also a threat to the life instinct of the individual.

As mentioned above a definite psychic trauma may not be found in the history of a case even after diligent search. The hyperthyroidism may be the natural outcome of a gradually developing maladjusted life pattern. If psychic traumata do occur they should be viewed as Means⁵ states (p. 304) "... to be looked upon as ... not more than activating and in no sense causative. The individual who develops this malady following a psychic or other trauma is to be looked upon as one especially prepared by heredity or sensitized by previous experience to make the type of response which the malady in fact constitutes."

Some workers find a high percentage of hyperthyroid cases that show a history of a precipitating shock to the security of the individual a short time before the onset of the symptoms. For instance, Bram¹⁹ found that in a study of 5000 case histories there was approximately 90 per cent of that number in which a clear history of psychic trauma could be elicited. But he felt that an inherent predisposition (Graves' constitution) is a prerequisite to sensitivity to psychic traumata. Other writers seldom find such a factor in the history. It is very probable that such a precipitating event would be found more often if the examiner would remember the following facts. Any environmental situation which is of such a nature as to threaten the security of the individual will react upon any particular person depending not so much upon the nature of the shock but upon the past conditioning of the person. Each individual has his own capacity to experience life. The examiner's attention should be focused on the personality and not on the event. It is not a satisfactory answer to dismiss psychosomatic factors in disease by saying that everyone has troubles, shocks and disappointments. Nor can anything be proved by stating that a similar or an identical loss or event has happened to another person who did not develop hyperthyroidism. The environmental

situation may be identical but no two personalities have built up the same reaction patterns. Bram¹⁹ states "Individual sensitivity to psychic traumata varies qualitatively and quantitatively." So it is what the individual experiences in his own peculiar way, not what the outside observer sees that is the determining factor in the outcome of the environment-personality relationship.

PSYCHOSOMATIC CONSIDERATIONS IN THE DIAGNOSIS OF HYPERTHYROIDISM

There are two facts which are of interest. It is well known that any given case of toxic goiter may show only one or more of the several cardinal signs and symptoms of the condition. Other cases may show a different set of these signs and symptoms and be lacking in some or all of those shown by the first set of cases. The symptomatology of males with the disease varies somewhat from that of females. In men the severity of the toxicity as expressed in the elevation of the basal metabolic rate does not find the same expression in symptomatology as is seen in women with the same B.M.R. The cardiac symptoms, the dyspnea, the increase in pulse rate, the intolerance of heat, etc., are more marked in the female.

Means⁵ states (p. 326) that "We do not all look or act alike when drunk, nor when thyrotoxic. The nature of the symptom picture is dependent, not alone on the action of the toxin, but upon the personality, constitution and reaction pattern of the subject."

Therefore the symptomatology of any case depends upon the preclinical psychosomatic nature of that person.

The second fact is that although hyperthyroidism has an etiological basis somewhat like a psychoneurotic anxiety state, the former is a psychosomatic manifestation. Owen²⁰ points out that a differential diagnosis between hyperthyroidism and the anxiety state of psychoneurosis involves the following: In hyperthyroidism the nervousness is somatic and objective from a clinical standpoint; the tachycardia is persistent and objective; there is a true intolerance of heat with warm moist hands, a fatigue that improves with rest and an increased metabolic rate. In anxiety states the nervousness is largely or entirely subjective; the tachycardia is erratic in incidence and there may be palpitation without tachycardia; the intolerance of heat is subjective; rest often does not help the fatigue and the basal metabolic rate is normal or near to the normal range.

PSYCHOSOMATIC CONSIDERATIONS IN THE MANAGEMENT OF HYPERTHYROIDISM

If we are to regard hyperthyroidism as but one aspect of a syndrome of psychosomatic maladjustment, it is seen that in directing the therapy at the thyroid gland we are treating an effect

rather than correcting a causative factor. Regardless of this fact, removal of a part of the thyroid has given good or excellent results in a large percentage of hundreds of thousands of cases. Nevertheless there are several writers who hold that continued investigation of the problem is worthwhile and that the treatment in the future may be quite different from the extirpation surgery of today. As noted above Boyd remarks that if the hyperplasia of the thyroid be considered compensatory, then when our knowledge of the subject is increased it may prove that there are better methods of treatment than the removal of a struggling compensating tissue.

Psychotherapy should have a wider application than it now enjoys. Jelliffe and White²¹ state (p. 310) "Psychotherapy is of value in the initial stages particularly, especially to determine why the thyroid is overfunctioning. It is particularly valuable as a follow-up of a surgical operation which has been performed to save life."

SUMMARY

From a psychosomatic viewpoint the thyroid is an important effector organ which is acted upon by humoral and nervous stimuli to secrete a hormone which normally varies the metabolism of the individual to meet his needs in varying life situations.

From a phylogenetic (racial history) aspect the thyroid is an important link in a kinetic system. Another link which obtains its characteristic development in ontogeny (personal developmental history) is the cerebral cortex. The latter interacts with the thyroid but is unable to change the place of this important gland in the basic patterns of the kinetic system.

Prolonged maladjustment of the person as a whole may result in demands upon the kinetic system of the body which will result, among other things, in hyperplasia of the thyroid gland. The maladjustment in at least some of these cases lies in the failure of the developing individual to establish an independence of the mother and to build a personality that has the adequate self-reliance necessary to form satisfactory environmental relationships. The hyperthyroid type of personality may be a way of life and in addition it has a peculiar manner of experiencing life's traumata whether they be psychic (situations that result in conflict), somatic (severe somatic injury) or humoral (severe infections).

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Bronchoscopy

I am reminded of a case in which bronchoscopy was delayed three years. The patient, a man of 47, developed what appeared to be a simple acute lower right lung abscess immediately following nasal surgery. It is probable that an acute atelectasis preceded this abscess. For the following three years he remained more or less bedfast. At long last bronchoscopy was requested and a low grade basal cell carcinoma was discovered occluding the lower right bronchus. The pleural adhesions from the long standing suppuration made lobectomy inadvisable and as a palliative treatment radon seeds were planted in the tumor mass bronchoscopically. Now, after eight months, the tumor is still visible but it has fibrosed and has decreased in size so that the suppurative disease distal to the growth has drained. Sputum is practically nil and the patient is up and about doing light work.—Paul Bailey, M.D., Portland, Oregon; Northwest Med., Vol. 38, No. 11, November, 1939.

A patient had a kidney stone with a wooden toothpick as a nucleus. He stated that he often chewed toothpicks, and the doctor believes that it may have sloughed through from the bowel.—Herbert H. Howard, Boston.

A patient with incontinence for twelve years refused to wear a urinal, and had used a wooden screw in the external urethral orifice. This orifice was thick, and threaded to fit the wooden plug.—William G. Exton, New York.

Acne Vulgaris — A Therapeutic Survey

IRVING L. SCHONBERG, M.D.

WITH the advent of irradiation as a means of therapy shortly after Roentgen's discovery, many enthusiasts applied this treatment to practically all incurable diseases. Without knowledge of its deleterious effects, this mysterious ray was applied to the many chronic skin diseases. The terrifying after effects of roentgen ray were soon realized as evidenced by pigmentation, keratoses, ulceration, and malignancy.

As a result of these experiences, roentgen ray is held responsible for much of the scarring that follows therapy for acne vulgaris. In reality acne is a scarring disease; following healing with this agent the edema, papules, and pustules subside and the scars become more evident. These may be detected before administration of the roentgen ray therapy and are in no way connected with irradiation "burns". Niles treated 40 patients using routine roentgen ray therapy on one side of the face and placebo treatments on the other side. The treated side presented no more scarring than the untreated side. Standardization by various methods, notably the ionization chamber, has rendered the measurements of roentgen ray an accurate procedure. In a series of 5,000 cases treated by MacKee with this method, there have been no harmful sequelae.

Two hundred and sixteen cases of acne vulgaris treated by various methods have been tabulated in an effort to determine the most efficacious method of treatment. These patients were treated from November 1934 to December 1937. The ages varied between 12 and 35. In determining the final results of treatment questionnaires were sent to many of the patients. In other cases, patients were seen at the office at six months intervals for observation following cessation of active treatment.

Results were tabulated into four groups:

- I. Rare to occasional eruptions—Satisfactory
- II. Fewer eruptions—Improved
- III. As many eruptions—Unimproved
- IV. Temporarily improved (six to twelve months)—Recurrence

Since most recurrences took place six to twelve months following cessation of treatment, a period of 15 months should be an acceptable interval to determine the outcome of each case. (Jeffery Michael found that 90 per cent of the relapses occurred during the first year.)

COMPARATIVE STUDIES

Howard Fox in 1924 reported 191 cases of acne treated with roentgen ray therapy; 111 patients

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were cured, 47 practically cured, 27 improved, two unimproved, and four recurrences. Simpson reported 500 cases of acne treated with roentgen rays with 11 per cent failures. In 1934 MacKee and Ball published a statistical report on 5,376 cases of acne. Six hundred six patients received roentgen therapy and of these about 83 per cent received satisfactory results. Twelve per cent were improved, and in 5 per cent roentgen ray failed to produce any effect. Four hundred and twenty-two patients in their series were treated without roentgen rays. About 40 per cent were cured in from six months to two years, but there were approximately 40 per cent failures compared with 5 per cent with roentgen ray therapy.

MacFarland reviewed 200 cases and found roentgen ray indicated in 68 per cent of the cases. Tobias in a series of 134 cases considered that roentgen ray was indicated in 80 per cent of patients with acne.

TYPES OF THERAPY EMPLOYED:

1. Local
 - a. Boric acid in alcohol
 - b. Resorcin 1% in alcohol
 - c. Salicylic acid 1% in alcohol
 - d. Lotio alba (plain) and with betanaphthol 1% or resorcin 1%
 - e. Lassar's Peeling paste
 - f. Vlemineckx's solution
 - g. Colloidal sulfur lotion
 - h. Sulfur marble soap
 - i. Ammoniated mercury ointment, 5-10%
 - j. Sulfur, resorcin, salicylic ointments
2. Internal
 - a. Vaccines (stock and autogenous)
 - b. Potassium arsenate
 - c. Iron salts
 - d. Foreign proteins
 - e. Dietary restrictions
 - f. Catharsis—where indicated
 - g. Endocrine preparations—where indicated
3. Physiotherapeutic
 - a. Roentgen therapy
 - b. Ultra violet therapy

THERAPEUTIC SUMMARY

All patients of the series were treated with local therapy before other measures were insti-

tuted. Pustules were incised and drained. Comedones were removed. Hot compresses were employed to aid drainage and the indicated preparations were applied. Examinations were made to eliminate all foci of infection.

Internal medications were administered where indicated. Foreign proteins were used in the indurated and deep pustular type. Ferrous salts were prescribed in cases presenting anemia as a concomitant factor. Endocrine products were administered in several cases which presented irregular menses or amenorrhea, and also in acnes following pelvic surgical procedures. Stock and autogenous vaccines were used in frank pustular acnes. Constipation was treated with mineral oil, cascara and saline products.

Dietary restrictions included the elimination of chocolate, cocoa, nuts, cheese, and excessive amounts of greasy foods. Heretofore dietary restrictions in cases of acne eliminated carbohydrates. Recent studies by Crawford and Schwartz prove that a high carbohydrate diet is of benefit in many acnes.

The above treatments were employed for periods varying from four to twelve weeks. If improvement was noted, local treatment and internal medication were continued until the case was cured. In most instances where response was favorable, a period of six to twelve months brought about complete cure. When the response was not satisfactory after four to six weeks, roentgen ray therapy was considered.

The patients selected for roentgen ray therapy were those over 16 years of age except in two instances where the acne was of a severe and rebellious type. According to MacKee it is inadvisable to administer roentgen ray treatment to patients under 16 years of age since recurrences are frequent. Practically all of these cases were of the deep seated papular and pustular acne accompanied by marked oiliness of the skin. The number of roentgen ray treatments administered varied from four to sixteen. One quarter of a skin unit (75 R) was administered weekly to the sides of the face unfiltered except in the very deep nodular types. In the latter $\frac{1}{2}$ to 1 mm. of aluminum filtration was used. In the majority of the cases a beneficial effect was noticed after four or five treatments.

Treatment was administered until new pimples ceased to form. One additional treatment was given following this result. After a period of two weeks if the acne proved inactive, a mild sulfur lotion was used to complete the cure. In the event that papule formation recurred, four additional treatments were administered. Local medication was instituted for a period of four weeks following roentgen ray therapy, and then a mild astringent containing 2 per cent salicylic acid in cologne water was prescribed. The latter, together with sulfur soaps or sulfur powder were used for six to twelve months after cessation of

roentgen therapy. Local treatment prior to the administration of roentgen ray aided in the removal of comedones, corrected to some degree the seborrhea, and in some cases appeared to decrease the number of roentgen ray treatments required.

In many cases beneficial results have been obtained with eight roentgen ray treatments; the majority of cases required 12 treatments. The skin was carefully observed for evidences of erythema, telangiectasia, or atrophy. In none of these cases were these effects evident. In several cases excessive dryness was noticed following the fourth roentgen ray treatment and on these occasions one-eighth skin unit was administered. Freckling and tanning of the skin was a noticeable by-effect but disappeared upon discontinuance of the therapy. Transient "electric erythemas" were noted especially in blond individuals. This effect disappeared within 48 hours.

THERAPEUTIC DISCUSSION

All patients were treated by indicated local applications before other methods of therapy were instituted. Some had received the usual lotions elsewhere and in the severe cases roentgen ray was administered without delay. Following four to twelve weeks of local therapy other methods were employed. In patients under 16, local applications, vaccines, and ultra violet therapy were employed. Cases selected for roentgen ray therapy were practically all of the pustular, large papular, and indurated types which had persisted over a long period of time without improvement under the usual methods of therapy. Of 216 cases it was necessary to

THERAPEUTIC RESULTS

	Number Patients	Satisfactory Results	Improvement	Failures	Recurrence
Local Therapy (Alone) (Other than Roentgen Ray)	56	28 50%	8 14%	20 36%	15 27%
Endocrine Substances	12	3 25%	1 8%	8 66%	1 8%
Arsenicals Ferrous Subst. Anti-Anemic Liver Vitamin	15	4 26%	2 13%	9 60%	1 6%
Foreign Prot. Vaccines (Stock, Autog.)	11	3 27%	2 18%	6 54%	0
Total All Types Except Roentgen Ray	94	38 40%	13 14%	43 46%	17 18%
Roentgen Ray Therapy	122	85 70%	32 26%	5 4%	15 12%

Percentages are approximate.

employ roentgen ray therapy in 122 cases or 56 per cent. The remaining 94 or 44 per cent were treated by local therapy, and indicated types of internal therapy. These included juvenile acne, seborrheic acne, and mild papular acne.

Fifty per cent of these received satisfactory results after one to twelve months; 27 per cent recurrences were evident some six to twelve months following treatment and these have recently been treated with roentgen ray. Seborrheic acne was recalcitrant to roentgen ray therapy. Juvenile acne patients (12 to 14) were resistant to all methods of therapy and methods were used to control rather than to cure these patients. Endocrine preparations were employed in 12 cases and benefits were noted in four. In these cases there was evidence of endocrine dysfunction. This type of therapy was not employed in patients under 18 years of age.

Recurrences following roentgen ray therapy were due to:

1. Dietary indiscretions.
2. Pregnancy.
3. Gastro-intestinal disturbances.
4. Foci of infection (teeth, tonsils, sinuses).
5. Failure to use astringent preparation for prescribed period.
6. Sunburn.

CONCLUSIONS

1. Roentgen ray is the most efficient single method of therapy in the treatment of acne.

2. This type of therapy should be preceded by a preparatory course of local therapy. If after six weeks there is no noticeable improvement, roentgen ray therapy should be instituted. This does not include individuals under 16.

3. Temporizing with local measures in recalcitrant cases increases scarring.

524 Keith Bldg.

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Tuberculosis in Massachusetts remains the most serious of the communicable diseases. The toll of tuberculosis is between four and five times as great as the sum of the recorded deaths from all other communicable diseases excepting influenza and the pneumonias, despite the reduction of 75 per cent in the death rate since 1900. The average duration of a case is between three and four years with an approximate cost of a thousand dollars for hospitalization.—A. C. Pope, M.D., *Commonwealth*, Jan., 1939.

Medicinal Sources of Vitamins A and D

The minimum daily intake of vitamin A from all sources necessary to prevent evidences of deficiency is 4200 to 5200 U.S.P. units for infants, 5500 units for children, 6250 units for adults, and 8700 units during pregnancy and lactation. The recommended minimum daily intake of vitamin D is 625 U.S.P. units for all ages with at least 800 units during pregnancy and lactation. It should be noted that these are minimum rather than optimum requirements, which are 3 to 4 times these amounts.

Cod Liver Oil, U.S.P., is required to have a minimum vitamin content per gram of 600 U.S.P. units of vitamin A and 85 U.S.P. units of vitamin D. The recommended U.S.P. dose of 8 cc. (2 drams), therefore, yields 4800 units of A and 680 units of D. Numerous over-strength preparations of cod liver oil are available, permitting proportionate reduction of the dosage volume, but considerable caution is necessary in employing these preparations to be sure that the D component has been increased proportionately to the A component. The D:A ratio in U.S.P. cod liver oil is 1:7 and this ratio should be maintained, or at least should not be lower than 1:10 in these stronger preparations.

Burbot Liver Oil, N.N.R., is obtained from the only fresh-water member of the cod family. It is 7½ times stronger than a standard cod liver oil in both vitamin components and the recommended dose of 1.0 c.c. (15 minims) furnishes 4480 units of A and 640 units of D.

Halibut Liver Oil, N.N.R., is seventy-five times as potent as a standard cod liver oil in vitamin A, but is only six times as potent in vitamin D, the D:A ratio being 1:90. The recommended dose of 0.2 c.c. (3 minims) furnishes 8960 units of A but only 108 units of D. Halibut liver oil is, therefore, a relatively poor source of vitamin D. This relative deficiency of vitamin D is overcome in the preparations of Halibut Liver Oil with Viosterol by the addition of enough viosterol to make the oil 100 times as potent in vitamin D as a standard cod liver oil, the 0.2 c.c. dose then yielding 1700 units of vitamin D.

Percomorph Liver Oil, N.N.R., is obtained chiefly from tuna and is 100 times as strong as a standard cod liver oil in both vitamins. The recommended dose of 0.2 c.c. (3 minims) yield 12,000 units of A and 1700 units of D, or approximately twice the minimum requirements for both vitamins.

Where it is desirable to administer either of the vitamins alone Carotene in Oil, N.N.R., as a source of vitamin A only, furnishes 6600 units of this vitamin in the recommended dose of 0.9 c.c. (14 minims), while Viosterol in Oil, N.N.R., as a source of vitamin D only, yields 2000 units of vitamin D in the recommended 0.2 c.c. dose.—Harold N. Wright, Ph.D. *Minn. Medicine*, Vol. 22, No. 12, December, 1939.

Trichinosis: Incidence in Dayton, Ohio

MELVIN OOSTING, M.D.

TRICHINOSIS is ordinarily regarded as an acute febrile disease, caused by the *Trichinella spiralis*, and characterized by intermittent fever, edema of the eyelids and face, rheumatoid pains in the skeletal muscles, leucocytosis and eosinophilia. Recent investigations have made it quite apparent that the symptomatology of trichinosis conforms to the oversimplified textbook picture of the disease only in rare instances and that a vast majority of the cases of trichinae infestation have gone unrecognized. Hall¹ and others have stressed the fact that we have as yet no adequate, distinctive clinical picture of trichinosis. While the symptoms and signs may be quite characteristic and unmistakable in the comparatively infrequent acute fulminating cases, particularly during epidemics, there is urgent need for a revision of diagnostic criteria for the recognition of the more frequent but less severe manifestations of the disease. It is probable that most of the so-called "sub-clinical" infestations are actually instances of failure to recognize the less prominent symptoms of the disease.

Without doubt many patients who are thought to be suffering from rheumatism, rheumatic fever, influenza, typhoid fever, gastro-enteritis, undulant fever, neuritis, myositis, angioneurotic edema, et cetera, are actually exhibiting symptoms of trichinosis. Two such cases may be cited to illustrate this possibility:

CASE REPORTS

Case 1. I. R., age 41, a white female housewife, was admitted complaining of occipital headache, fever, chills and sweating. The headache had persisted for 10 days with the fever and chills being evident for three days prior to admission. There had been marked diarrhea on the day before admission but none on the day of entry to the hospital. A history was obtained of drinking well water while visiting in the country 10 days before admission. The temperature on admission was 104.6 F. (40.3 C.). The general physical examination was essentially negative except for muscular tenderness. A provisional diagnosis of typhoid or paratyphoid fever was made. However, blood films showed eosinophilia of 15 per cent, associated with leucocytosis of 11,800 cells per cu. mm. Trichinosis was suspected and further questioning revealed that she had eaten uncooked smoked country ham 11 days before admission. The Bachman² skin test, which utilizes trichinella antigen, was done and showed a strongly positive reaction in 20 minutes. The Bachman precipitin

The Author

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test on the blood serum was also positive in a 1:3,000 dilution. The positive skin test and precipitin test and the increasing eosinophilia led to a diagnosis of trichinosis. Biopsy was refused. A sample of the ham which was suspected of being the source of infestation was found to contain enormous numbers of trichinae.

Case 2. B. M., age 45, a white male, was admitted to the hospital for control of his pernicious anemia which had been diagnosed a year previously. He complained of marked muscle tenderness. Routine blood examinations revealed a normal total leucocyte count and 6 per cent eosinophilia. A review of blood studies on previous admission revealed that there had been no eosinophilia present at any time. Further questioning revealed that he had eaten a large amount of pork during the previous few months. He was in the habit of eating his portion in practically a raw state, while the remainder of the family cooked their portions thoroughly. The Bachman skin test gave a positive immediate reaction and the precipitin test was positive in a dilution of 1:640. Biopsy was not done.

Trichinosis was suspected by finding the eosinophilia in the blood films. While this is an important guide in the diagnosis of trichinosis, in the lethal infestations reported by Sobel³, Gordon, Cares and Kauffman⁴, Walker⁵ and others, eosinophilia was absent or did not occur until just before death. In some severe cases with recovery, eosinophilia will not be present during the acute phase.

INCIDENCE OF UNRECOGNIZED CASES

The incidence of the unrecognized cases of *Trichinella spiralis* infestation has been variously estimated according to the methods of investigation and the geographical location. A true value of these studies cannot be determined until statistics have been obtained from many localities, including city as well as rural populations.

In a summary of surveys made by different individuals in various parts of this country, Sawitz⁶ found that of a total of 3,322 post-mortem examinations, in which a special search was made for *Trichinella spiralis*, 410 individuals

From the Diagnostic Laboratories of the Miami Valley Hospital, Dayton, Ohio; Dr. Walter M. Simpson, Director.

Submitted June 29, 1939.

were found to be infested, or an incidence of 12.34 per cent. More recently, Nolan and Bozicevich⁷ reported that 17.4 per cent of 1,000 diaphragms from human subjects contained the parasite in either the living or dead state. Evans⁸, studying diaphragms and other skeletal muscles from 100 persons, found an incidence of 36 per cent in Cleveland. Hood and Olsen⁹ found 16 per cent of diaphragms infested with trichinae in 428 unselected postmortem examinations performed in Chicago hospitals. Pote¹⁰, reporting the results of examination of skeletal muscle specimens from 1,060 autopsies in St. Louis over a five-year period, found that 15.4 per cent contained *Trichinella spiralis*.

These later reports have shown a distinctly higher percentage of infestation than was revealed by older studies. This might be interpreted to indicate a higher incidence of trichinosis in recent years, but the improved methods of analysis of available material provide a more likely explanation.

SOURCE OF MATERIAL AND METHOD OF EXAMINATION

The larvae of *Trichinella spiralis* mature rapidly after liberation from their cyst walls by the digestive action of the gastric enzymes. After the adult parasites copulate in the upper intestinal tract the female penetrates the mucosa and deposits the immature larvae. These enter the blood stream either directly or by way of the lymphatics and are distributed throughout the body.

While the larvae may be found temporarily in the heart, lymph nodes, brain, meninges, and other tissues, they ultimately lodge and become encysted in skeletal muscle. The diaphragm, intercostal muscles, tongue and throat muscles and ocular muscles are invaded by the greatest number of larvae. Encystment is usually completed by the end of the tenth to twelfth week. Calcification of the cyst wall may begin within five or six months; the parasites may remain alive for many years in the calcified cysts.

Diaphragms from 134 unselected autopsies on individuals dead from causes other than acute *Trichinella spiralis* infestation and over five years of age, were used in this study. The entire diaphragm was saved, and if examination could not be done at once it was preserved in the fresh state in a mechanical refrigerator at 40 F. (4.4 C.).

All extraneous fat tissue was removed from the diaphragm, care being taken not to remove any of the tendinous muscle insertion. It was then passed through a fine meat grinder so that there was a homogeneous mixture of all parts.

A 50-gram sample of the ground diaphragm was subjected to digestion in 500 cc. of artificial gastric juice, made with 2.0 per cent pepsin and 1.0 per cent hydrochloric acid in water. Digestion

was permitted to continue for 48 hours in an incubator maintained at 37.5 C. Occasional agitation hastened the process. Digestion was usually complete at the end of the 48-hour period. The supernatant fluid was siphoned off with a suction pump. Hot water was then added which caused the debris to float to the surface. After standing for 15 minutes to permit the parasites to settle to the bottom of the beaker, siphonage was again used to remove the floating debris and supernatant fluid, and the small amount of remaining residue was carefully examined with a dissecting-type binocular microscope with a magnification of about 20 diameters. The total number of trichinae found was counted and identified as to whether they were encysted, with or without calcification of the cyst wall, or free.

Approximately one-third of the diaphragms were examined by both the digestion and press methods. The press method consisted of squeezing thin slices of muscle tissue between two pieces of plate glass, approximately 3 by 10 inches, in a metal compression frame¹¹. It was found that only the more heavily infested specimens revealed the trichinae by the press method. This confirms the contention of Queen¹² that the digestion method is superior to any other method.

RESULTS

Twenty-seven diaphragms were found to contain *Trichinella spiralis*, either in the free or encysted state; an incidence of 20.1 per cent. In 11 cases all the larvae were free; 13 showed cysts with complete or partial calcification; 3 showed both free and calcified encysted larvae.

The average number of parasites found per 50 grams of diaphragm was 50.4, or 1,008 per gram. The smallest number found was 1 while the highest was over 1,000 larvae.

DISCUSSION

The results of this study indicate that about one in every five individuals in Dayton is infested with *Trichinella spiralis*. Although trichinosis is a reportable disease, only occasional cases are reported. Hence, the available statistics are inadequate and inaccurate. Since the introduction of the Bachman² intradermal test and the precipitin test, more of these cases are being identified. While these diagnostic aids provide strongly presumptive evidence of trichinosis, in patients with eosinophilia and clinical evidences of the disease, the final absolute diagnosis depends upon biopsy of skeletal muscle tissue. Queen¹² regards the digestion method, complemented with control microscopic sections, as the diagnostic method of choice in biopsy and necropsy material, and in suspected meat products. Hall¹³ emphasizes the fact that human trichinosis is dependent upon the incidence of swine trichinosis and that "swine trichinosis rests primarily on a basis of uncooked

or inadequately cooked pork scraps fed to swine in garbage, table scraps, swill and similar material." Contrary to the usual belief, rats do not appear to play an important rôle in the production of porcine trichinosis.

It is probable that the most frequent source of human infestation is the unprocessed pork products prepared without supervision for local consumption on farms or in small slaughter houses. At the present time the responsibility for the continued high incidence of trichinosis rests with the consumer and the hog raiser. If all pork products were adequately cooked before eating, and if all garbage fed to hogs was cooked thoroughly, the sources of the infestation could be controlled.

CONCLUSIONS

1. The great majority of cases of trichinosis are not recognized.

2. A study of the diaphragms of 134 persons obtained at autopsy in Dayton, Ohio, revealed an incidence of 20.1 per cent infestation with *Trichinella spiralis*. This evidence indicates that approximately one in every five persons in Dayton is infested with this parasite.

3. In none of the 134 cases had a clinical diagnosis of trichinosis been made. Even though the infestation had no apparent relation to the cause of death in these cases, it seems probable that many of these patients exhibited at some time symptoms of trichinosis which were attributed to other diseases.

4. The digestion method provides a valuable addition to the procedures to be employed in the diagnosis of trichinosis.

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Character and Significance of Heart Pain

This close relationship between angina pectoris and coronary thrombosis suggests that the two conditions are one and the same, differing only in the extent of the underlying pathology, and justifies the frequent practice of describing them under the caption of coronary heart disease. One must not lose sight of the fact, however, that the cause of pain is an inadequate myocardial blood supply and that obstructive coronary disease is but one, although a very important one, of several sources of a deficient blood supply. In the case of cardiac hypertrophy, for instance, the demand for an increased volume of blood may be a larger factor than any obstruction in the coronary vessels. Again, it is a well known fact that anginal attacks, often of a severe degree, are frequently associated with an incompetent aortic valve. The coronary arteries get their maximum refill in the rest period of the heart, and in the presence of a very low diastolic pressure, which obtains in aortic regurgitation, the failure of the coronary vessels to fill is the factor rather than obstruction. The same condition obtains in a heart going at a terrific rate, as in paroxysmal tachycardia. Finally, certain contributing factors in the production of myocardial anoxemia and consequent pain must not be overlooked, such as a deficient oxygen carrying power of the blood in severe anemia and in breathing an oxygen poor atmosphere.

Because, therefore, the cause is not always the same and because the clinical expression of each is quite different, it is probably better, from the standpoint of treatment and prognosis, to consider angina pectoris and coronary thrombosis separately.—R. O. Rogers, M.D., Bluefield, W. Va.; W. Va. Med. Jour., Vol. 35, No. 12, December, 1939.

LUPUS AND PULMONARY TUBERCULOSIS

Lupus patients rarely die of lupus, according to the conclusion drawn from a study of 211 patients who died after attending the skin department of the Finsen Institute of Copenhagen in the last 25 years. While lupus seldom proves fatal, other manifestations of tuberculosis, particularly pulmonary tuberculosis, are a frequent cause of death. In many fatal cases of pulmonary tuberculosis the disease of the lungs become manifest shortly after treatment of the lupus had been instituted. If the lupus patient can avoid death from tuberculosis he has a good chance of living to a ripe old age.—Gudtoft, C. N. S., Jour. Amer. Med. Assn., Sept., 1939.

The Use of Histaminase in the Treatment of Various Allergic Manifestations

JONATHAN FORMAN, A.B., M.D.

THIS is a brief report of the clinical results obtained with the use of histaminase in the treatment of various allergic manifestations. It is, therefore, not necessary to present a detailed report of the literature. It is enough to point out that there is considerable evidence to support the theory that the failure of the body to metabolize and detoxify histamine is a cause of some, if not all, of the symptoms of allergy.

In 1930 Best and McHenry of Toronto recovered from the body tissues a substance which resembled an enzyme and which they called histaminase. This substance, when incubated with histamine, had the remarkable property of inactivating the latter. The substance was found to be present in the blood, liver, muscles, spleen, lungs and other tissues but more abundantly in the kidneys and the mucosa of the duodenum, jejunum and ileum. It is absent in the gastric mucosa.

These observations suggest a new approach to the treatment of protein sensitization. A goodly number of allergists are now busy studying its possibilities. For more than 10 years I have used graduated injections of histamine in the treatment of various allergic manifestations. My greatest success has been in cases of chronic urticaria. This was done on the theory that we were stimulating the production of neutralizing substances in distant organs and sending these substances into the blood for transport to the scene of the allergic reaction. So when the opportunity* came to supply neutralizing substances directly we seized it with enthusiasm which the results here reported seemed to justify.

We have confined ourselves to the oral administration of enteric coated capsules of histaminase each containing five units of the neutralizing substance. I have used it routinely on cases of urticaria and angioneurotic edema coming to me because of my happy experiences with histamine itself. I have also used it in a few instances of acute coryza, dermatitis—both atopic and contact—and also in a few cases of asthma where I was at my wit's end.

* I have been generously supplied with five unit capsules of Histaminase by the Department of Medical Research of the Winthrop Chemical Company, Incorporated. Shortly it is expected that these Histaminase capsules will be released under the trade name of "Torantil".

Presented before the Ohio Valley Society of Allergy at Cincinnati, October 28, 1939.

The Author

Dr. Forman, Columbus, Ohio, is a graduate of Starling Loving Medical College, 1913; lecturer in medicine (allergy) Ohio State University; Member American Association, Study of Allergy; vice president Cleveland Society of Allergy; chairman of the executive committee of the Ohio Valley Society of Allergy; member, executive committee of Midwestern Forum on Allergy; director-general of the International Correspondence Club of Allergy.

CASE REPORTS

Case I.—10,909. Woman, aged 40 with agio-neurotic edema of the face for some time. In spite of elimination of all positive skin reacting substances during the first week and an elimination diet patterned after Rowe the second week that she was in our hands after her skin tests had been completed, she still had periodic attacks of edema; cleared up promptly with 10 units histaminase t.i.d. for two days, then 5 units t.i.d. for eight days. We then established by trial that fish was the main cause of her trouble. This brought on a recurrence which was controlled by the same medication i.e., a total of 180 units of histaminase. This had to be repeated twice more because of recurrences—total of 720 units. During the last 10 days she was given graduated injections of histamine beginning with 2 mgms. and going up to 30 mgms. at end of which she was able to discontinue the treatment.

Case II.—10,956. Woman, aged 20, with recurrences of an atopic dermatitis in an acute form caused by eating string beans, given 5 units t.i.d. for seven days, total 105 units. Itching stopped almost at once and went on to heal much more promptly than it had on previous occasions for us. Later we deliberately fed the beans and got the same satisfactory results with injections in graduated doses of histamine.

Case III.—10,784. Farmer, aged 44. Has had one crop of hives after another for years during the harvest season, especially during haying and thrashing. We were able to secure some evidence that this correlated with a strongly positive skin test to alternaria. This year, therefore, before May 15 he had been made tolerant to 0.50 cc. of a 1-100 extract of alternaria. He did much better this year. It was not until he was well along in his haying that he broke out badly. This was promptly cut down from a serious situation to one or two small hives a day by the use of 5 units of histaminase t.i.d. When he began thrashing he broke out at once as he had always done. However, he cleared when given 10 units t.i.d. until the thrashing was done in his neighborhood.

Histaminase was discontinued at the end of three weeks. The hives returned when he was filling his silo but were promptly controlled in the above fashion with histaminase.

Case IV.—8824. Woman, aged 33, with acute symptoms of hay fever with swelling and edema about the eyes due to sensitization to the spores of the alternaria as a complication of a ragweed pollinosis. Coming on about August 1 the edema cleared up within 24 hours, the nasal symptoms improved by the use of 5 units t.i.d. for one week—total 105 units.

Case V.—11,143. Woman, aged 19, who came to us from a distant city with chronic urticaria of several months duration. She was given a preliminary testing, placed on a beef, rice and pear diet as is our custom and told to make an appointment for her return in one week. Some evidence had been collected that she might be sensitive to milk. She was given 10 units t.i.d. for two days and then 5 units t.i.d. for five days. She cleared within 48 hours and stayed free of hives until milk was re-introduced into her diet when they returned. Milk was withdrawn and they disappeared.

Case VI.—7,729. Woman, aged 45, with marked obesity and asthma off and on for years. With increase in weight she is always short of breath and has paroxysms of asthma weekly. As an experiment this last summer on two occasions when she was particularly bad she was given 5 units of histaminase t.i.d. for two weeks with no effect and then 10 units for one week and she felt that there was considerable help. She apparently should have been tried on much larger doses.

Case VII.—10,654. Man, aged 27, with chronic urticaria for the last 18 months. Beginning July 7 he was given five units t.i.d. for 20 days—total 315 units of histaminase. Hives promptly cleared and have not returned. The patient continues to avoid suspected foods and refuses to make the necessary experiment of them in his diet to establish their relationship to his hives.

Case VIII.—11,900. Man, aged 53, with an acute attack of hay fever due to sensitivity to alternaria beginning August 5 given 10 units t.i.d. for four days. Symptoms cleared in 24 hours. Recurred October 3 when he was given 10 units t.i.d. for two days. Relief was obtained in 24 hours.

Case IX.—9,198. Man, aged 51, with chronic, rather intractable, asthma was given 5 units t.i.d. for one week beginning July 26. Patient felt he was decidedly helped though not completely relieved.

Case X.—9,888. Woman, aged 42, with chronic allergic coryza, due to house dust which was not well controlled in her home, got considerable relief with 5 units t.i.d. for one week. She was then called to her mother on account of illness where, with no medication and no control of her environment, she became much worse. Her visit was made comfortable by the use of 5 units t.i.d. of histaminase while she was there. On her return home proper allergic management, including both avoidance and injections of her own autogenous house dust brought complete relief.

Case XI.—10,184. Woman, aged 65, who had been free of asthma for one year came in August 1 with a recurrence. She was given potassium iodide, ephedrine and aminophyllin and in addition 15 units t.i.d. for two days and then 10 units t.i.d. for four days with prompt relief. The same procedure a year ago without the histaminase had taken six weeks to get the asthma under control.

Case XII.—10,485. Man, aged 65, with contact dermatitis on the hands due to dust, 10 units t.i.d. for one week did not help.

Case XIII.—11,100. Woman, aged 24, came about 100 miles; seen in mid-summer because of angioneurotic edema which had been present daily since early spring and because of a non-seasonal allergic coryza. Was given 10 units t.i.d. for two days and then 5 units t.i.d. for five days. The edema disappeared in 48 hours and on her second visit one week later she was found to be sensitive to feathers. These were removed and all trouble disappeared and have not returned. There has been one night when she stayed away from home and was exposed to feathers which brought her coryza back temporarily. It is to be noted that she continues to avoid all foods suspected from the history or from the skin testing.

Case XIV.—10,827. Woman, aged 60, who had been taking treatment for ragweed hay fever and asthma developed a rash on the exposed surfaces in midsummer. Cause never determined but while it lasted the itch was readily controlled by 5 units t.i.d. and returned promptly whenever this was discontinued.

Case XV.—10,735. Woman, aged 45, with chronic asthma for two years with a sensitivity to house dust and orris root. The avoidance program was not well controlled. When given 10 units t.i.d. for two days and then 5 units t.i.d. for five days she did not get any relief and since she was not relieved by this she has been given graduated doses of histamine daily with no benefit.

Case XVI.—10,652. Man, aged 23, with migraine due to food allergy under control for one year by avoidance. Recurrence due to careless avoidance of offenders. Next two suspected attacks did not occur while the patient was on 10 units t.i.d. after which the patient was put back on the avoidance program and the histaminase stopped.

Case XVII.—10,745. Woman, aged 39, atopic with migraine of the menstrual type was placed on 10 units of histaminase t.i.d. but the attacks came regularly just the same.

Case XVIII.—8,400. Man, aged 42, giving good positive reaction to horse serum intracutaneously but negative to horse dander was given antitetanic serum and 5 units t.i.d. for two weeks and no serum reaction of any kind occurred.

Case XIX.—11,175. Man, aged 29, was sent in from a distant city with chronic urticaria of several weeks duration associated with hyperthyroidism. The urticaria was controlled by the use of 10 units t.i.d. for two days and then 5

units t.i.d. for five days and cleared within 48 hours. The patient was prepared for surgery and during the two weeks that this was going on there were no recurrences. After his partial thyroidectomy he has had no trouble whatever.

Case XX.—11,500. Woman, aged 42, six months pregnant, with acute urticaria of four days duration. Had a similar attack in last pregnancy, never worked up from an allergic point of view. Seen in the home in consultation and was given 15 units for three doses and 10 units t.i.d. for two days. The hives were better in 12 hours and disappeared in 24 hours and have not re-occurred, so it stands as a single observation.

Case XXI.—11,268. Woman, aged 28, in third month of pregnancy, with chronic urticaria and angioneurotic edema of the great toe and foot. She was given 10 units t.i.d. for two days and the 5 units t.i.d. for five days, and cleared promptly. She was transferred to daily injections of histamine while continuing the skin tests.

Case XXII.—11,239. Woman, aged 35, with chronic urticaria for months was given 10 units t.i.d. for two days and the 5 units t.i.d. for five days. She was placed on a milk and banana diet and began to clear promptly. She was transferred to daily injections of histamine while the skin testing was progressing and the elimination diet based on these were begun. There were no hives until the offending foods were exhibited in the diet.

Case XXIII.—8,628. Woman, aged 44, with chronic urticaria was carefully studied and managed at a distance through an alert and intelligent family physician by two different and well known allergists. I myself, did the same with no better results. For one year she has suffered without treatment except the injections of epinephrin by the family physician when the hives became unbearable. She was sent by mail capsules of histaminase with instructions to take 10 units t.i.d. for two days and then 5 units t.i.d. Within 24 hours she cleared and stopped the histaminase without recurrence. This has happened before in her case and so she is waiting with histaminase capsules at hand to make further observations when her hives return.

Case XXIV.—11,266. Man, aged 65, with "winter rash" for the last two winters. Pruritus controlled by 5 units t.i.d. tolerably well. Transferred to daily injections of histamine with equally good results. Carried over the week-end by use of 5 units t.i.d.

Case XXV.—11,274. Woman, aged 44, with dermatographia and chronic urticaria for seven months which had baffled four physicians, one of whom had given her daily injections for 20 days. She was given 15 units t.i.d. for two days. The second day she came in complaining of her hives being worse and more particularly of nausea and heart burn. She proved to give skin reactions to cow's milk and beef.

Case XXVI.—11,260. Woman, aged 19, with urticaria from eating seafood and fish for one week. Was given 10 units t.i.d. for two days and cleared but returned and was controlled by 5 units for the next week.

Case XXVII.—11,090. Woman, aged 25, with chronic urticaria off and on for weeks at a time over the last several years. Came to us because of hay fever and was given 10 units t.i.d. for two days and then 5 units t.i.d. for five days. The urticaria cleared so that we could go on with the skin tests and then put her on definitely allergic management which has controlled the hives.

Case XXVIII.—10,014. Girl, aged 12, was sent in from a distant city with asthma and atopic dermatitis which had been fairly well under control for some time. Patient broke over her limited diet and developed an acute attack of edema. On the fourth day she received from us histaminase capsules to be taken 10 units t.i.d. for two days and then 5 units t.i.d. for five days. The itching stopped almost at once and the skin began to heal, but much more rapidly than it had in the score or more of attacks that she had suffered before.

Case XXIX.—11,107. Woman, aged 42, developed a dermatitis on the exposed surfaces, during her hay fever season. Co-seasonal hay fever treatment promptly brought it under control but the skin condition got worse. The patient got out of hand and was consulting three other physicians simultaneously and trying to follow the conflicting treatments at once. She insists however, that we keep her supplied with histaminase 5 units t.i.d., as she knew that it was a great help.

DISCUSSION

Certain impressions stand out from this experience.

First—That this therapeutic agent offers a new and helpful approach to the treatment of urticaria, angioneurotic edema, atopic dermatitis, and acute allergic coryza.

Second—Our results in asthma, contact dermatitis and other allergic conditions were much less satisfactory. It is quite possible that this is a matter of dosage.

Third—We have seen no side effects. We did have one interesting experience in which the capsules of histaminase seemed to make the hives worse and produce nausea and heartburn in a woman with chronic urticaria sensitive to cow's milk and beef.

Fourth—Histamine injections and histaminase by mouth are interchangeable in the treatment of allergic manifestations in the skin. In most instances the capsules will be more convenient.

Fifth—In all fairness to the remedy it would seem more important to give large doses in the type of asthma in which I have used it.

Finally, this preliminary study will have to be extended before conclusions can be reached but so far the outlook seems most hopeful. Many other workers interested in allergy are and will be reporting their results and when these are assembled we shall have information as to the limitations and dosage of histaminase in the field of allergy.

The Present Status of Tetanus Toxoid and Its Use In Immunizing Serum Sensitive Individuals

GEORGE E. ROCKWELL, M.A., M.D.

THE prophylactic use of tetanus antitoxin has shown that the passive immunity so conferred is short lived. Multiple injections are needed if protection is to be prolonged enough to be adequate, serum sickness is often a sequela, and sensitization to the horse serum may result. If the patient is previously sensitive to horse serum or emanations there is danger of immediate anaphylactic reaction, and it is probable that in most of such cases adequate protection is not secured.

It is difficult to obtain adequate protection in sensitive individuals or animals because the antigen is anchored locally. Also, any passively induced immunity is lost more rapidly than in normal individuals. Opie originally showed that the antigen, when injected into the tissue of a sensitized animal, is retained locally. Kahn, with his rabbit experiments, has dramatically shown the local anchoring of the antigen and its relation to general protection. He demonstrated that a rabbit given 50 units of diphtheria toxin intravenously dies, while another rabbit given 50 units of diphtheria toxin intravenously, together with a sufficient dose of antitoxin intramuscularly, survives. A third rabbit, previously sensitized to horse serum, if given diphtheria toxin intravenously and diphtheria antitoxin intramuscularly, dies just as if it had never received any antitoxin. Further, Glenny and Hopkins observed that animals previously sensitized to horse serum lost their passively induced immunity more rapidly than normal animals.

Therefore if a person sensitive to either or both horse serum and horse emanations is given the ordinary prophylactic dose of tetanus antitoxin, and either escapes or survives the acute anaphylactic shock, he is still faced with the probability that he is not protected against tetanus. If he is to be protected, it is necessary that he be given sufficient antitoxin to saturate completely local tissue anchoring and leave sufficient excess to be absorbed in the general circulation to give protection. The probability is that this is rarely accomplished.

The limitation of passive immunity in tetanus, as shown by frequent development of tetanus in supposedly protected individuals, have stimulated efforts to produce an active immunization against the disease. The work of Ramon and others on diphtheria toxoid naturally suggested the possibility of the application of these principles to

The Author

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tetanus. Thus from the work of Ramon, Descombey, Zoeller, and many others, has come alum precipitated tetanus toxoid for the production of active immunity to tetanus.

The studies done to date both on animals and on man indicate that two doses of the precipitated toxoid injected subcutaneously, with an interval of two to three months between the injections, give a satisfactory immune response several months after the second dose. The response is of greater degree than is obtained after a prophylactic injection of tetanus antitoxin. However, as time elapses, the antitoxin content of the blood decreases. At a later date, this basic or residual immunity can be quickly built up by another injection of the precipitated toxoid. Thus, if the properly immunized individual receives an injury which might lead to a tetanus infection, he should receive another dose of the tetanus toxoid. This stimulates his basic immunity to such an extent that, in a short time, he has more antitoxin per unit of blood serum than is obtained by the prophylactic use of antitoxin.

The reactions are usually negligible. One never encounters the extreme sensitivity that frequently occurs with diphtheria toxoid in older children and adults. However, local reactions with swelling and a subsequent nodule which may persist several months are occasionally observed.

Active immunity, as stimulated by alum precipitated tetanus toxoid, has many advantages. There is no hazard of serum reactions or danger of an acute anaphylactic shock. It is particularly applicable to children and persons whose occupation exposes them to repeated injuries. Finally, horse sensitive individuals are better protected.

Two objections are the difficulty of having patients report for the second dose, because of the

long interval between doses, and the uncertainty of persons reporting for a subsequent dose in case of injury. In a limited number of persons, mostly adults, there is poor production of antitoxin. This, coupled with the fact that there is no simple test for determining whether or not the patient is immune, constitutes the most serious objection. If, however, the combined immunization to diphtheria and tetanus is used, followed by a Schick test, the development of a negative Schick test in a previously Schick positive individual can reasonably be taken as indicating that response has been obtained to the tetanus stimulation, since the individual responded with the production of diphtheria antitoxin.

Immunization with alum precipitated tetanus toxoid can be successfully combined with diphtheria alum precipitated toxoid immunization. In fact, such a combination makes the Schick test indirectly available in determining the response to the tetanus toxoid. Simultaneous immunization to tetanus, diphtheria, and typhoid can be done with no more apparent reaction than occurs with one alone.

There is not the same general indication for immunization against tetanus as exists in immunization against diphtheria. However, all children, all persons engaged in pursuits in which injuries frequently occur, and all persons sensitive to horse serum or horse emanations should be immunized. Thus, we find pediatricians immunizing more children all the time, people engaged in military pursuits are being actively immunized to tetanus, factory workers and football players (Duke University) are also immunized, and allergists are immunizing horse sensitive individuals.

In summary, it can be stated that studies on active immunization to tetanus indicate that after injecting two doses of alum precipitated tetanus toxoid, with a two to three month interval between injections, a basic immunity is produced. This may be quickly built up with another injection of toxoid at any later date. It is even possible that a person who is infected with *B. tetani*, following the primary immunization, will be able to increase his antitoxin (due to the toxin absorbed from the infection) at such a rapid rate that the disease will have been prevented. However, when a person is known to have an injury which may lead to a tetanus infection, it is safest that he be given another dose of toxoid immediately. It has been suggested by some that after the primary immunization of two doses a stimulating injection be given every six months to a year to all persons who are liable to frequent injuries.

A word of caution should be given that tetanus toxoid is not protective in people who have received injuries, but who have previously not received their immunizing doses or whose immuni-

zation has not been completed previous to injury. In such cases one has no alternative but the prophylactic use of tetanus antitoxin, remembering, however, that in a horse sensitive individual adequate protection is not easily obtained by the use of antitoxin.

2500 Melrose Ave.

Barbiturates Should Be Sold Only on Prescription

It is pertinent to inquire into the new federal pure food and drug law and its effect upon this state problem. Certain drugs, if to be sold in interstate commerce, must be named and the quantity or proportion given. They are bromides, ether, chloroform, acetanilid, acetphenetidin, amidopyrine, antipyrine, atropine, hyoscine, hyoscyamine, arsenic, digitalis, digitalis glucocides, mercury, ouabain, strophanthin, strychnine, thyroid or any derivative or preparation of such drugs. The statement, "Warning—May be habit forming," must be placed on the label with the name and percentage for the following drugs; alpha eucaine, barbituric acid, beta eucaine, bromal, Cannabis, carbromal, chloral, coca, cocaine, codeine, heroin, marihuana, morphine, opium, paraldehyde, peyote, or sulfonmethane, or any derivative of these drugs. The warning provision applies to the habit forming drugs dispensed on prescription of physicians, dentists and veterinarians, or otherwise dispensed, unless the prescription is marked by the writer as non-refillable or refilling is prohibited by law.

The Food and Drug Administration has issued notices to distributors of sulfanilamide and its derivatives, cincofen and neocincofen, amidopyrine and preparations thereof, that interstate sale or distribution except on prescription of a physician, dentist or veterinarian will be considered a violation of the federal law.

While the good intention of the federal law is obvious and helpful, it cannot apply to the dispensing, sale or gift within state jurisdiction. Each state must have its own law to control or regulate its own drug dispensers and users.—Lee D. Cady, M.D., St. Louis; Jour. Mo. S. M. Assn., Vol. 36, No. 12, December, 1939.

Continuous Suction

Continuous suction relieves distention of the intestine, thereby improving the blood supply to the intestines, and prevents, in many cases, an enterostomy or a colostomy. Continuous suction without adequate fluids or proteins will tend farther to dehydrate a patient and, over a prolonged period of time, a starvation edema may develop. Therefore, in its use, the blood chlorides, blood proteins and blood concentration should be frequently determined.—Chauncey B. Wright, M.D., Huntington, W. Va.; W. Va. Med. Jour., Vol. 35, No. 12, December, 1939.

Case Record Presenting Clinical Problems

White Woman, Aged 38, Gravida X, Para VII, Acute Uremia? Death. Autopsy.

HARRY L. REINHART, M.D.

A WHITE female, 38 years of age, gravida X, para VII, was admitted to the hospital in the last trimester of pregnancy with a prolapse of the umbilical cord. She had been seen regularly in the prenatal clinic and her only complaints were "morning nausea, vomiting and chronic constipation". At no time were there symptoms of toxemia and there was no albumin in her urine. However, she was poorly nourished and gave the general impression that she should be hospitalized for delivery. At times she complained of pain in the left lower quadrant, a dull constant ache in the left scapular region and backache. About one month ago she had a "cold" for which she treated herself. On the day before her admission she appeared in the out-patient clinic stating that her membranes had ruptured. She was examined and kept under observation for an hour and as there was no evidence that she was in labor she was sent home. The following day she felt miserable and had spells of hot flashes followed by chills. During a bowel movement she felt something drop out and soon after this she was brought to the hospital. She had experienced no severe labor pains up to this time.

She has a past history of scarlet fever, pneumonia and meningitis. She has five living children, all well. One of her children died of diphtheria and one of "summer complaint". In 1935 she had a miscarriage at six months following a fall. She had a spontaneous miscarriage in 1938.

Temperature 100.2° F; pulse 124 and respiration 26 per minute; blood pressure 102/58. The patient is a well developed but poorly nourished white female lying in bed. She appears to be approximately six months pregnant.

The mucous membrane of the nose is congested and presents a serous discharge. The thyroid gland is palpable but not otherwise remarkable. The percussion note is impaired over the chest. Breath sounds are normal. There is no physical evidence of enlargement of the heart; a soft blowing systolic murmur is present at the apex. The abdomen is enlarged, the fundus of the uterus is at the level of the umbilicus, and evidence of uterine contractions is observed at irregular intervals. There is a prolapse of the umbilical cord and pulsations of the cord are manifest. The extremities are negative and the reflexes are physiological.

Laboratory examinations: Wassermann and Kahn tests were negative. Urinalysis—albumin 10 mg. per cent; sugar 0.5 mgm. per cent. Blood count: hemoglobin 9.8 gm.; erythrocytes 2.96 million per cu. mm.; leucocytes 17,600 per cu. mm.; neutrophils 94 per cent, (non-segmented

neutrophils 20 per cent), lymphocytes 4 per cent, myelocytes 2 per cent. Blood chemistry: blood urea nitrogen 82 mg. per cent, carbon dioxide capacity of the blood plasma 30 volumes per cent; blood chlorides 485 mg. per cent. An X-ray plate of the chest revealed "a diffuse infiltration suggestive of a broncho-pneumonia".

Course in hospital: at the time of her admission to the hospital the prolapsed pulsating umbilical cord was replaced. There was one finger dilation of the cervix and she was having labor pains at irregular intervals. Approximately 14 hours later the umbilical cord prolapsed again; this time the pulsations of the cord were absent. Uterine contractions were increased by the use of pituitrin and 10 hours later she was delivered of a dead fetus. Following delivery of the fetus, the placenta could not be expressed and the patient had a profuse hemorrhage. The blood pressure dropped to 60/?, the pulse became rapid and thready, and the respirations were fast and labored. She was given 750 cc. of glucose and acacia, and the placenta was extracted manually. Following this she received a transfusion of 600 cc. of citrated blood. She showed signs of improvement but experienced severe nausea and vomiting which were controlled by Wangensteen drainage. Approximately 10 hours after delivery she began to expectorate frothy sputum which was streaked with blood. Medical consultation was obtained and the opinion was expressed that she had a pneumonic involvement of the lower lobe of the left lung. Her blood pressure remained about 60/40.

On the third hospital day her total urinary output was 90 cc. The following day she was comatose, slightly cyanotic and there was increased dullness and rales present at the base of both lungs. Nasal oxygen was administered for the cyanosis and she was given a transfusion of 250 cc. citrated blood. She did not respond to treatment and expired on the fourth hospital day with a temperature of 101° by rectum.

Dr. Thomas F. Ross:

This case history of a 38-year-old, white gravida X, para VII, presents several interesting problems for discussion. First, the available evidence suggests a clinical diagnosis at death of acute uremia. Contributing factors listed in order of importance are: bronchopneumonia, acute endometritis, and surgical shock resulting from the necessary manual extraction of the placenta and postpartum hemorrhage. Individually and collectively these factors also assume a more important role in the cause of death when one considers the general debility and somewhat anemic state of the patient on admission.

From the clinical history, it would seem that

This is the forty-sixth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

the real onset of this illness was characterized by an acute infection, probably bronchopneumonia. Coincidentally there occurred a spontaneous rupture of the fetal membranes and prolapse of the umbilical cord with subsequent death of the fetus. The delivery was complicated by an adherent placenta (placenta accreta?), which was manually extracted and a severe uterine hemorrhage followed. At this stage we are confronted with a poorly nourished, debilitated anemic woman with a pneumonia who has been subjected to the shock of delivery of a fetus, adherent placenta, and a severe hemorrhage. It would not have been surprising if she had succumbed to the primary shock which was so manifest at this time. The fact that she rallied from the primary shock for a period of over two days must be attributed at least in part to the effective shock treatment. However, the severe strain of primary shock is often followed by serious complications, the most notable of which is infection. With the profound lowering of body resistance induced by shock and anemia and especially in the face of an existing infection, specifically pneumonia, we are confronted with an almost hopeless situation.

The next significant event in the course of her illness was the onset of oliguria. This was attended by an elevation of the blood urea nitrogen (82 mg. per cent) and no elevation of blood pressure. The differential diagnosis and in some degree the prognosis depended largely on whether these symptoms were a manifestation of kidney disease, or of shock, infection, and disturbed water balance. If they were a manifestation of kidney disease, the differential diagnosis should rest between cortical necrosis of the kidneys and acute glomerulonephritis. Cortical necrosis of the kidneys is a syndrome which occurs most frequently in the last trimester of pregnancy and is characterized by death of the fetus in utero, convulsions following delivery, pus and red cells in the urine, oliguria or anuria, nitrogen retention, elevated or normal blood pressure and death about five days after the onset of the anuria. Manifestly, many of the classical features of cortical necrosis of the kidneys are absent. Acute glomerulonephritis is characterized by an "antecedent or associated infectious process of some kind, usually a streptococcal infection". Not infrequently a streptococcal pneumonia, puerperal sepsis or an infected wound is the causative infection. A latent period for bacterial sensitization is not necessary. Albumin, casts and red blood cells in the urine, oliguria or anuria, edema, nitrogen retention and elevated blood pressure are usually present.

Extra-renal disease may also produce the syndrome described in this history. In both of these conditions the prognosis is bad. We know that infection, anemia, and shock with the persistently

low blood pressure could explain the clinical manifestations and possibly offer a more favorable outlook from the standpoint of treatment. Hence, this course of treatment was followed.

The case in general is an example of the rapid evolution of a series of events occurring not infrequently in obstetrical practice which demand emergency procedures with little choice as to methods. Even in retrospect insufficient evidence is available for accurate differential diagnosis which must rest largely upon the autopsy.

Dr. Reinhart:

Anatomic diagnosis. Acute glomerulonephritis; acute bilateral bronchopneumonia; acute endometritis; acute splenic tumor.

There are several histological varieties of glomerular lesions in acute glomerulonephritis. The embolic variety is usually associated with bacterial endocarditis. The exudative variety most frequently appears in staphylococcal septicemia. The thrombotic type of glomerular lesions, which is the glomerulonephritis of this case, is an expression of generalized toxic capillary injury, usually the result of infection. Histological examination of the kidneys revealed no evidence of a pre-existing nephritis.

The interpretation of clinical laboratory data in acute glomerulonephritis is often difficult and especially when there is an associated infection, shock and anemia. Nitrogen retention in acute glomerulonephritis is not so often due to glomerular occlusion as in chronic glomerulonephritis. Low blood protein from inadequate protein intake, disturbance of water balance from vomiting, hemorrhage, shock and toxic capillary injury bring about a pre-renal deviation of water (edema), and excessive protein destruction due to infection may be responsible for excessive nitrogen formation. The pre-renal deviation of water and low blood pressure are important factors in the production of oliguria, and favor nitrogen retention.

Many of these factors are often present in the last trimester of pregnancy, thus setting the stage for the development of acute glomerulonephritis, if the spark of streptococcal infection is provided. The fetus may drain the mother of proteins (negative nitrogen balance), calcium, iron and vitamins (hypocalcemia and anemia) if they are not provided and assimilated in adequate amounts, and hydremia and edema (disturbed water balance) are invariably present during pregnancy in some degree. These factors may severely tax the normal cardio-vascular-renal system of the pregnant woman or reveal any inherent weakness by the clinical manifestations of failure. Although laboratory evidence indicating the ante partum existence of such conditions is not available in this case, there is reason to assume that such was the status of the patient on her admission to the hospital.

Tuberculosis Abstracts

A Review for Physicians by the National Tuberculosis Association and Distributed by
Component Society, the Ohio Public Health Association

GENITAL TUBERCULOSIS

Genital tuberculosis may occur at any age but the vast majority of patients range from 20 to 40 years. The younger the patient the more virulent the infection. Genital tuberculosis is secondary to some other tuberculous focus in the body, usually the lungs. Ninety-five per cent of these patients had associated far advanced pulmonary tuberculosis and 86.8 per cent had sputum with tubercle bacilli. The infection may reach the genital tract directly by way of the blood stream, by way of the lymphatics and, secondarily, by continuity of tissue. The seminal vesicles and prostate are the primary seat of the genital tuberculous infection (though the epididymis gives more pronounced symptoms) and also the focus from which the bladder and kidneys in many cases are affected.

DIAGNOSIS

The difficulty in accurate diagnosis of the scrotal and prostatic masses has been emphasized frequently, yet the chief underlying cause is incomplete investigation.

The only method available for the examination of the prostate and seminal vesicles is palpation with the finger in the rectum. In the early stages of the disease no change may be demonstrable by this means of examination, but in the vast majority of cases definite signs are present. Irregular, firm but not stony hard nodules in the prostate recognized by means of touch indicate extensive involvement of this organ. Likewise when the seminal vesicles are felt as pencil-like bands, extending in an upward and outward direction from the upper margin of the prostate, extensive involvement of these organs is indicated.

Examination of the external genitalia is best done with the patient in a standing position facing the surgeon. Observations are made of alterations in the normal rugose appearance of the skin of the scrotum, the shape of the testicles and their relative position in respect to each other. Changes in the scrotal skin are sometimes a valuable guide, as shown by a smoothing out of the rugae and a wasting of the cellular tissue immediately beneath the dermis. Adhesion of the skin to the epididymis is a well known sign, as is also a sinus discharging creamy pus. A comparison of the mobility of the two testicles is sometimes helpful. A normal organ can be moved freely within its covering, particularly in the upward and downward direction. This movement is often restricted when tuberculosis of the genital organs is present. In the early stages a soft or even fluctuant mass at the site of the epididymis and involving it is present in a large

percentage of cases. If untreated, it will result in is often restricted when tuberculosis of the genio-discharging pus or it will become a hard fibrotic or calcific mass. Late in the disease the epididymis may entirely lose its identity or, if it can be palpated, will be craggy and nodular. The vas becomes thickened and has beadlike prominences.

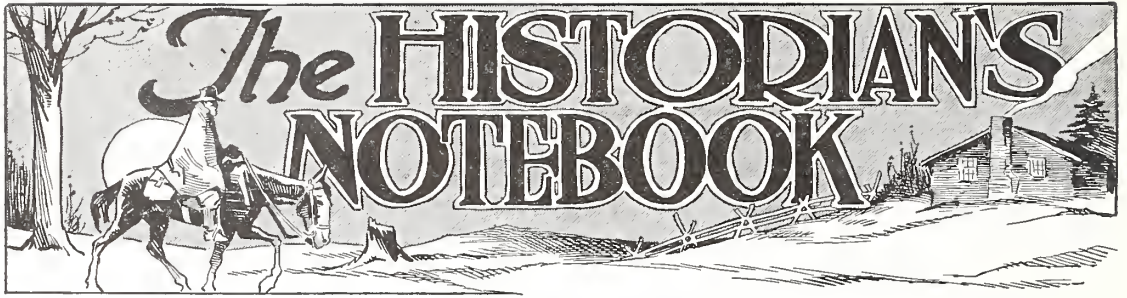
PROGNOSIS AND TREATMENT

The prognosis of genital tuberculosis does not depend entirely on the prognosis of the associated pulmonary lesion, as the authors discovered by comparing their series of cases with a comparable series of pulmonary tuberculosis without genital involvement. In fact, the presence of genital tuberculosis adds considerably to the gravity of the general disease and shortens the life expectancy. At the end of a one- to eleven-year period of observation, only 34.4 per cent of the authors' patients were alive.

The surgical treatment recommended varies from a careful resection of the infected focus to the complete removal of the seminal tract. The immediate mortality rate of radical surgical management, the persistent draining sinuses that are frequent sequelae of such intervention and the false rationale of removing a single focus and leaving the primarily infected prostate, have placed this form of therapy in general disrepute among phthisiologists and urologists versed in the management of tuberculosis.

The beneficial effect of ultraviolet therapy in extra-pulmonary tuberculosis has been well known for many years. It is logical to choose a form of therapy which will lend itself to sharp localization to the desired areas, that is the prostate, the seminal vesicles and the epididymis thus producing the maximum local effect without doing any general harm. Irradiation of the epididymis alone has been common practice among the men who advocate this form of physical therapy for genital tuberculosis. It is the author's belief that if radiation were given with equal intensity to the prostate and seminal vesicles, the most frequent primary seat of tuberculosis infection in the genital tract, the result would be more certain and more rapid and reactivation would be less likely to occur.

The authors describe at some length their method of applying light therapy by means of the cold quartz lamp and report encouraging results in the treatment of the catarrhal and ulcerative types.—Eli A. Miller, M.D., and Mischa J. Lustok, M.D., *Jour. of Amer. Med. Assn.*, Vol. 113, No. 15, Oct. 7, 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

An Early Tracheotomy

RICHARD A. ASZLING

IN these days of speedy dashes across the continent to bring the blessings of modern bronchoscopy to the aid of a child who has swallowed a plaything, it is all too easy to forget what the old-timers were up against when they faced the same problem.

In 1869, working under decidedly adverse circumstances, Dr. J. C. Reeve, of Dayton, performed an amazing tracheotomy to remove a large crude shawl pin from the throat of an eight-year-old girl who owed her life to his skill and quick thinking. Interest in this history-making case was revived recently when the pin and an account of the operation in the old doctor's own handwriting were acquired by *The Journal* to be turned over later to the Committee on Medical Archives of the Ohio Historical and Archeological Society and kept in the State Museum.

The surgeon handling this case today would hardly think of the obstacles which stood in Dr. Reeve's way. Without the fluoroscope, the bronchoscope, or the other instruments that have been devised to simplify retrieving foreign bodies, he approached the task relying solely on his "knife" and a "strong hook." To complicate the whole problem, his patient's pulse and respiration stopped during the operation, and he had to hurry through it to employ mouth-to-mouth resuscitation. He had originally decided to put off operating for several hours, or until day light, because he reckoned that the risk of delay would be less dangerous to the child than the risk of operating by lamplight.

Yet, in spite of all the handicaps, that little girl lived to rear children of her own!

The shawl pin which Dr. Reeve recovered in this case is of importance in medical history because it was at that time the largest object ever removed from the throat by surgery. He made note of this fact on the paper which he left with the pin, adding that "the only possible

rival is an undressed horseshoe nail reported in Eve's 'Surgical Cases'."

Attention was called to the existence of this vestige of early Ohio medicine in the course of some correspondence between Mrs. Charlotte Reeve Conover, of Dayton, the doctor's daughter, and headquarters office of the Ohio State Medical Association relative to another matter. Mrs. Conover referred to it, saying:

"I am getting old and nobody in the family will be interested in this after I am gone. I don't want the shawl pin thrown into the trash barrel but think it should be preserved together with Father's name somewhere in medical circles." Although Dr. Reeve had asked that the pin be sent to the library of the College of Physicians, Philadelphia, Mrs. Conover and her sister, Mrs. Mary Reeve Dexter, to whom it was bequeathed, saw fit to change their father's plans and give it a final resting place in Ohio. "I have a strong sentimental loyalty for Ohio and feel that it ought to go there," Mrs. Conover explained.

Dr. Reeve's notations on his famous tracheotomy included the following interesting statement:

"As examples of foreign bodies in the trachea, I may here put on record that I assisted Prof. Blackman, Med. College of Ohio, in two tracheotomies in which he took from each a cockle-burr."

On one of the two slips of paper which accompanied the shawl pin he noted that a full account of the operation might be found in the *American Journal of Medical Sciences* for October, 1867, but on the other he set the date as October, 1869. The latter proved to be the correct volume.

The following is the text of Dr. Reeve's case report which appeared together with a remarkably accurate woodcut of the shawl pin in the *American Journal of Medical Sciences*, October, 1869:

"ART. X—TRACHEOTOMY FOR REMOVAL OF A SHAWL-PIN.

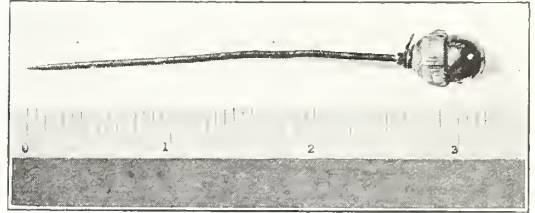
BY J. C. REEVE, M.D., DAYTON, OHIO.

(With a wood-cut.)

"I was called out of bed about half past ten o'clock on the 10th of May last, to see a little girl who had 'swallowed a shawl-pin.' I found the patient to be eight years old and in good health. About an hour before she had been playing with a shawl-pin, which her mother told her to lay down and go to bed; soon after retiring, perhaps half an hour, she came rushing out of her room, strangling and choking, with the cry that she had swallowed the pin. Her breathing was laboured and embarrassed, and she complained of something "sticking" her about the fauces. I made several efforts to inspect the throat, but without success; these brought on fits of coughing, and she soon said she was better, that it did not 'stick' her any more. From the description given me of the pin, it was difficult to believe it had passed into the air-passages, or indeed had gone anywhere down the child's throat, yet further examination speedily confirmed the worst apprehensions. Inspection of the chest showed that the left side did not expand upon inspiration; this was so marked that the parents were readily convinced of the fact; the respiratory murmur was entirely absent upon that side; moreover, every few minutes she had severe paroxysms of coughing characteristic of the presence of a foreign body. There could be no doubt that the pin was in the trachea with its head impacted in the left bronchus. As the symptoms were not urgent, I left her for the night with instructions to send for me immediately if she became worse, believing that the advantage of having daylight for the operation would more than counterbalance the evils of the delay.

"I visited her about five o'clock in the morning, with the intention of making a careful examination with the stethoscope, and of preparing for the operation. Immediately upon entering her room, however, I saw that there could be neither doubt as to the nature of the case, nor delay in treatment. She had passed a bad night, coughing in violent fits frequently, but I was told that the marked difficulty of respiration had only supervened about an hour before. It was now extremely laboured and very noisy, and her face deeply suffused. It needed but a glance to show that an operation was imperative and immediately necessary to save her life. As soon as the requisite preparations could be made, and the assistance of Drs. Jennings, J. W. Stewart, and Shriver, procured, it was proceeded with, chloroform being first administered. I aimed to follow Trousseau's directions to "operate slowly, very slowly;" the hemorrhage was very free, as anticipated from the extreme distension of the veins of the neck during the inhalation of chloroform; a small arterial branch spurted, and the veins poured out blood copiously; by sponging with ice water this was checked, but the intentional delay to allow the bleeding to cease before opening the trachea was much increased by constant coughing, which, added to the laboured respiration, did not give me an opportunity to make the last incision. This cough was short, hacking, and incessant; it began during the administration of chloroform, and was not allayed by the production of full anaesthesia, and I believe that at that time the pin was dislodged and its point driven up against the glottis, the irritation there producing this continuous short cough,

so different from the violent paroxysms caused by the presence of foreign bodies in the trachea. Knowing that a free incision into the trachea was necessary, I introduced the point of the knife close to the thyroid gland, and in opening the tube must have divided large veins which I had not seen, for a most copious venous hemorrhage poured over the wound and into the air-passages, and her condition immediately became critical. She was rolled on her side, and in clearing away the blood and mucus from the wound



PIN WHICH WAS REMOVED

my finger came in contact with the shaft of the pin; I had expected to divide it with pliers or scissors, but there was no time for this, and I passed a strong hook around it, guided by the finger, and withdrew it by bending it out. No other procedure was possible; the respiration had not only become more embarrassed by the entrance of the blood, and by the efforts at extraction, but it had actually ceased; when the pin was removed she had not inspired for some little time, her pulse had ceased, her countenance indicated that she was "gone," as all standing by said. Without a moment's delay I cleared away the blood and mucus and began mouth-to-mouth respiration, closing the wound in the neck with one hand and the nostrils with the other. After this had been continued a short time she drew a single breath, and soon another, and after a little while respiration was fully established. Her pulse soon became perceptible, but was not satisfactory until after an enema of whiskey and water had been administered. A tube was introduced into the wound for fear that the swelling from the injury done to the parts would interfere with respiration, and it was continued most of the time during the following thirty-six hours; she was very much troubled by a copious secretion of extremely tough mucus, and her respiration was such that for forty-eight hours I felt considerable anxiety as to her recovery; by the end of that time, however, she was out of danger and her convalescence was uninterrupted.

"The accompanying illustration gives the exact size of the shawl-pin; its length is three and a quarter inches."

Famous for many things besides this remarkable operation, Dr. Reeve is well known by name to students of Ohio medical history. He is credited with having introduced the clinical thermometer into common usage in America, and it was he who developed the A.C.E. mixture for anaesthesia. He served as Dayton's first president of the Ohio State Medical Association in 1884-85, and in 1920, the year of his death, he was elected President Emeritus of the Association, the first man ever to receive that distinction.

Allergy From Hypersensitiveness to Insects; Early Medical History

KARL D. FIGLEY, M.D., Toledo, Ohio

UNTIL quite recently, I was under the impression that Parlato and myself first called attention, almost simultaneously, to insects as causing allergy. However, the following correspondence shows that insect hypersensitiveness was recognized long before our contributions, although not published. The first hint of this, was contained in a letter written to Dr. George L. Lambright of Cleveland, by the late Dr. W. F. Washburn of the Arlington Chemical Company. Dr. Lambright very kindly sent me the letter some few years ago.

November 18, 1930

Dr. George L. Lambright
625 Union Building
Cleveland, Ohio.

Dear Sir:—Under date of March 16th, 1928, you referred to a patient as sensitive to "Canadian Soldier" flies. Later we wrote you relative to this matter and advised that we had heard of one previous case of this kind.

The physician in the case, Dr. F. West, now resides in Baltimore but was formerly of Buffalo and he reported his Canadian Soldier patient as one having been met in Buffalo to our representative who visited him in November, 1926. Hence you will note prior to November, 1926, a case of Canadian Soldier sensitivity had been noted by Dr. West now of Baltimore. In fact he made an extract for both diagnosis and treatment and encountered a severe anaphylatic shock upon injection.

You have doubtless seen the two papers that have since appeared in the literature relative to Canadian Soldier sensitivity, one by Dr. Karl D. Figley of Toledo, Ohio, entitled, "Asthma Due to the May Fly", American Journal of the Medical Sciences, September, 1929. The other by Dr. S. J. Parlato of Buffalo, N. Y., entitled, "A Case of Coryza and Asthma Due to Sand Flies (Caddis Flies)", Journal of Allergy, November, 1929.

The paper by Dr. Parlato was read at Atlantic City, May, 1929, and the writer happens to have heard the reading of said paper.

Recently we received a communication from Dr. W. L. Tucker, of New York, advising that his brother, a resident, we believe, of Cleveland, was extremely sensitive to Sand flies and simultaneously a shoe-box full of these sand flies was sent to us, by Dr. Tucker, for protein extraction.

And we have given you this little chronology in re: Canadian Soldiers, partly because you figure early in the story and partly because we wish to advise that if you now have occasion to make cutaneous tests on one or more cases of suspected May fly sensitivity or if you have occasion to use one or more treatment sets; because in the event of such need we are now pleased to advise that we can supply you with a small amount of the diagnostic testing powder and incidentally one or more treatment sets.

In the above we have referred to these flies as "Canadian Soldiers", even as did you in your early communication and in other parts we have referred to May flies, after Figley, and sand flies after Parlato. Dr. Tucker (who, by the way, is assistant to Dr. W. L. Thomas, head of the Allergy Clinic at St. Luke's Hospital, New York City), advised he was sending "sand flies", as collected in Cleveland and it therefore appears that these flies enjoy a variegated nomenclature as Canadian Soldiers, May flies, sand flies, Shad flies, June flies and lake flies.

And according to Figley, belong to the order of Ephemera, but according to Parlato this sand fly "is also known as the caddis fly belonging to the order of the Trichoptera".

But regardless of nomenclature or orders, Ephemera or Trichoptera, we feel you will be interested to know, as stated above, that there is now available to you a diagnostic Canadian Soldier protein as well as the treatment set.

Assuring you we would be interested to learn of any comment you have to offer in re any of the above, we are

Very truly yours,

The Arlington Chemical Company.

WFW:AB

As this letter shows, Dr. Washburn was a bit confused regarding the distinction between caddis flies (Trichoptera) known locally as "sand flies", and May flies (Ephemera), known as "Canadian Soldiers". However, the letter served the valuable purpose of putting me in touch with Mr. Fred West and through him, with Dr. G. H. A. Clowes. Their letters follow:

THE HOWARD A. KELLY HOSPITAL, INC.
Baltimore, Maryland.

February 29, 1932.

Dr. Karl D. Figley
316 Michigan Street
Toledo, Ohio.

My Dear Doctor Figley:—Many thanks for your reprint on asthma due to the May flies. Dr. G. H. A. Clowes and myself did considerable of the early work on the sensitization and desensitization phenomena. We published a preliminary article in 1910 on immunity to ragweed and timothy pollens conferred by repeated injections of increasing doses of the pollen extract.

A good many patients were referred to us at that time and one doctor, from Detroit I believe, came to us with a history of a nervous patient of his who developed asthmatic symptoms whenever she drove through a swarm of Canada flies which, as you know, is the local name for the ephemerids. He regarded the whole thing as preposterous, but the patient had heard of this work and wished to be tested out.

A dozen or so of these May flies were brought

to me in a match-box and I made an extract of the whole fly just as I had of the pollens. We were at a loss to know what part of the fly was responsible for the sensitization, although my own feeling about the matter was that it was probably the sperm from the male which I thought might be falling in a finely divided state from such a cloud of these insects copulating in the air. These insects have but a few hours to live in this stage and I could not conceive of any other exudation from the flies which could cause sensitization of this type. I was biased in this view by the thought that so many of the sensitization phenomena were associated with proteins of the male or female reproductive glands; for example, the pollens, eggs, fish roes, etc. I am very much interested in your view that the minute particles of the shed pellicle of these insects is the cause of the trouble.

Our patient, as far as I remember, had no symptoms except when actually driving through a cloud of the insects, but such an adventure would put her to bed for a few days with very acute asthma. However, I clearly remember that I sent her doctor a dilution of 1 in a million of the whole insect. Dr. Clowes instructed him to make a further dilution and test the conjunctiva. However, he failed to do this and merely told the patient that an extract had been made which he was going to inject into her arm. He used the 1 in a million dilution and produced a terrific reaction in the arm which almost necessitated its removal.

I regret that I cannot give you the name of the patient or the doctor as it is so long ago, but you might be able to get them from Dr. Clowes who is in charge of the Research Laboratories of the Eli Lilly Company, Indianapolis, Indiana. The case must have been around 1912; and in 1913 or 1914 another case was reported to me from either Toledo or Cleveland, I forget which. I am sorry that I am so vague about the actual date as Dr. Clowes was keeping the notes of our work.

Thanking you again for your reprint, I am,

Very truly yours,

FRED WEST,

Superintendent.

FW:MC

THE LILLY RESEARCH LABORATORIES

Eli Lilly and Company
Indianapolis, Indiana. U.S.A.

Director
G. H. A. Clowes

March 17, 1932.

Dr. Karl D. Figley
316 Michigan Street
Toledo, Ohio.

My Dear Dr. Figley:—Your letter of March 14th with enclosures received. I was greatly interested in your reprint on "Asthma Due to the May Fly". So far as I can remember, the statements in Mr. West's letter are substantially correct. I was doing a lot of work with pollens, particularly ragweed and goldenrod, and West and I were the first to publish on results obtained with ragweed and goldenrod and the first to prepare a concentrated preparation. Whilst we were engaged in this work, the first case of which Mr. West speaks was brought to me by my father-in-law, Dr. Hinkel, who was a nose and throat

specialist in Buffalo at that time and who was cooperating with us in our investigation on hay fever. I remember particularly my conversation with the patient and the patient's insistence on the May fly as the cause, and in the course of the discussion I suggested to West that we should salt down May flies with our acetone-ether procedure, the same that we had used with the pollen. This Mr. West did and we did get very remarkable reactions with the case and did desensitize it. I mentioned this at some meeting and I believe that it is somewhere in print in a discussion on sensitization phenomena. Unfortunately I have not the literature in question here and have no record of the discussion in question, but I remember having seen the proof and am quite convinced that if you look up the publications of societies dealing with this and related questions for a period of three or four years following the observation that you will find some record of it.

Mr. West is also right in stating that we saw another such case. I am writing to my father-in-law to see if he can possibly run down the case but I am afraid that, as he has retired from practice for more than ten years, it is very unlikely that he will be able to do so.

I am satisfied that the first case was in the year 1910 or 1911, and the second case not later than 1912, and I am quite confident that whatever mention I may have made of the subject preceded the outbreak of the European war in 1914.

Yours, sincerely,

G. H. A. CLOWES,

Director of Research.

GHAC:FC

Mild Depressions

Therapy aims at conserving psychic energy and diverting it from mental and physical symptoms to healthy conative and cognitive processes. It invokes not only prescribed therapies in general medical practice but the addition of what is usually termed psychotherapy. It begins when the doctor is called. Even though the first visit may be utilized on the history of the symptoms or on a physical examination, an emotional reaction is occurring in the patient. Psychotherapy is, to some extent, administered in all physical therapy and the latter intrudes itself into the former.

Inhibiting influences are greatly decreased when a patient is alone with an understanding doctor who listens to the verbally expressed distorted emotional reactions. For the patient this is something more than what is commonly termed "mental catharsis". Spoken and written language are means whereby man can acquire a more conscious recognition of his thoughts and feelings and a clearer evaluation of his mentation. Those patients who do not wish to talk are not to be urged to. But they are to be visited and not neglected.—Elizabeth I. Adamson, M.D., Toledo, Ohio; *N. Y. Jour. of Med.*, Vol. 39, No. 20, October 15, 1939.

Proceedings of The Council

Important Statement of Policy on Health and Medical Proposals and Programs Is Adopted at December 10 Meeting; Budget for 1940 Approved; Plans for Organization of Woman's Auxiliary Recommended; Additional Business Transacted

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Sunday, December 10, 1939, in the State Headquarters Office, Columbus. The following were in attendance: President Smith, President-Elect Skipp, Past-President Hein, Treasurer Beer; Councilors Schriver, Hogue, Klotz, Rutledge, Goehring, Swan, Seiler, Sherburne, and Burley; Dr. Steinke, Akron, and Dr. Kiely, Cincinnati, delegates to the American Medical Association; Dr. Forman, Editor of *The Journal*; Executive Secretary Nelson, Assistant Executive Secretary Saville, and Director of Public Education Aszling.

Minutes of the meeting of The Council held on October 8, 1939, as published in the November, 1939, issue of *The Ohio State Medical Journal*, pages 1219-1221, were approved on motion by Dr. Seiler, seconded by Dr. Burley and carried.

It was announced that the membership of the Association as of December 10, 1939, totaled 6,377 compared to 6,117 on the same date a year ago and to 6,128 as of December 31, 1938.

Members of The Council reported on visits to and activities in their Councilor districts.

Cancer Program—Dr. Lawrence A. Pomeroy, Cleveland, chairman of the Executive Committee, Women's Field Army Against Cancer in Ohio, present by invitation, explained the activities and purposes of the Women's Field Army. He stated that the Women's Field Army is making every effort to work with the medical profession and wanted the cooperation and active assistance of the profession in its educational program. Dr. Pomeroy specifically requested each member of The Council to assist workers in the various districts in arranging speakers for lay groups under the sponsorship of the Women's Field Army, and urged members of The Council to get in touch with officers of the county medical societies in their districts on the matter of cooperating with representatives of the Women's Field Army.

REPORT OF JUDICIAL AND PROFESSIONAL RELATIONS COMMITTEE

Amendments Approved—The following report from the Judicial and Professional Relations Committee was presented on behalf of the committee:

"Amendments to the constitution and by-laws of the Mahoning County Medical Society, adopted by that society on October 17, 1939, and submitted to The Council of the State Association

for review and approval, have been studied carefully by members of the Judicial and Professional Relations Committee.

"The committee finds that the amendments do not conflict in any way with the provisions of the Constitution and By-Laws of the Ohio State Medical Association and, therefore, recommends that they be approved by The Council.

"While reviewing the amendments adopted by the Mahoning County Medical Society and amendments adopted recently by several other county medical societies, the committee was impressed with the tendency on the part of county medical societies to include an excessive amount of detail in the by-laws of such societies.

"The committee recognizes the fact that each component society has a right to include in its constitution and by-laws any provisions which may seem desirable to that society, providing they do not conflict with the provisions of the Constitution and By-Laws of the State Association. Nevertheless, the committee believes that inclusion of unnecessary provisions and excessive details frequently causes confusion in interpretations and is a hindrance rather than a help toward good organization procedure.

"The committee feels that the constitution and by-laws of any society should contain only basic provisions and that such documents should not attempt to perform judicial functions, which responsibility should be left to the proper judicial and administrative agencies of the society. The context of a constitution and by-laws should consist of provisions and language which are easily understood and easily interpreted in order to make such document workable and to avoid confusion when such provisions have to be applied. With the permission of The Council, the committee believes that it would be advisable for it to prepare a brief statement on this matter for distribution to all county medical societies to serve as a guide to societies which may be contemplating revisions in their constitutions and by-laws."

On motion of Dr. Klotz, seconded by Dr. Sherburne and carried, the above report was approved.

Statement Authorized—On motion by Dr. Sherburne, seconded by Dr. Seiler and carried, The Council authorized the Judicial and Professional Relations Committee to prepare a statement along the lines suggested in the foregoing report, such statement to be submitted to The Council at its next meeting for final action.

BUDGET FOR 1940

Dr. Sherburne, chairman of the Committee on Auditing and Appropriations, presented a report regarding the anticipated income of the Associa-

tion for 1940 and recommendations for the budget for the ensuing year. On motion by Dr. Hein, seconded by Dr. Schriver and carried, the report of the committee, including the 1940 budget, was approved as follows:

Estimated Income—Income of the State Association for 1940 was estimated as follows:

Membership Dues	\$43,897
Interest on Bonds	2,400
Annual Meeting Receipts	4,385
Total	\$50,682

Budget—The following budget for 1940 was recommended and approved:

Ohio State Medical Journal	\$12,500
Executive Secretary, salary	6,000
Executive Secretary, expense	800
Asst. Exec. Secretary, salary	4,600
Asst. Exec. Secretary, expense	600
President's expense	400
Treasurer's salary	300
Council, expense	900
Annual Meeting expense	3,500
Auditing and Appropriations Committee	100
Committee on Public Relations and Economics	7,500
Committee expense	\$2,000
Salary, Director of Bureau of Public Education	3,500
Director, expense	500
Bureau operating expense	1,500
	\$7,500
Committee on Education	2,500
Miscellaneous Committees	500
Stationery and supplies	1,200
Postage, telephone, telegraph	2,000
Rent, insurance and bonding	2,760
Stenographer	1,440
Stenographer	1,200
A.M.A. delegates, expense	400
Total	\$49,200

EXPLANATORY STATEMENTS

The following explanations regarding the budgetary items were presented by the committee:

The Journal—A \$500 decrease in the appropriation for *The Journal* was approved due to the fact that it probably will be unnecessary to purchase additional office equipment during the ensuing year and because of anticipated increase in revenue from advertising.

Committee on Education—A small decrease in the budget item for educational activities was approved, based on expenses for such activities during the past year.

Rent, Insurance, Etc.—A small increase in this item was felt necessary in order to meet increased payments to the Unemployment Compensation Commission.

A.M.A. Delegates—Inasmuch as the 1940 A.M.A. meeting will be held in New York City, a small increase in this item was approved in order to pay traveling expenses of Ohio delegates.

Committee on Public Relations—Because of the establishment of the Bureau of Public Education, a substantial increase for the Committee on Public Relations and Economics, under which the Bureau operates, was approved in order to adequately finance the public education program contemplated during the ensuing year.

Salaries—No increase was made in the salaries of the Executive Secretary, Assistant Executive Secretary, and Editor of *The Journal*. Salaries for 1940 for the other members of the Headquarters Office staff were designated as follows: Miss Haney, \$2,700; Miss Okert, \$1,740; Miss Winzenreid, \$1,440; Miss West, \$1,200.

WOMAN'S AUXILIARY

The special committee of Council consisting of Dr. Hogue, chairman; Dr. Klotz and Dr. Rutledge, submitted the following report recommending procedure preliminary to the organization of a State Woman's Auxiliary which, on motion by Dr. Hogue, seconded by Dr. Burley and carried, was adopted:

"The Special Committee appointed by President Smith, on authorization of The Council, to develop plans and procedure for the organization of a Woman's Auxiliary to the Ohio State Medical Association, in compliance with the resolution adopted by the House of Delegates at the 1939 Annual Meeting at Toledo, herewith presents a preliminary report on its activities to date and certain recommendations for consideration of The Council.

"In the opinion of the committee, there are three important steps which should be taken leading up to the organization of a Woman's Auxiliary. They are:

- "1. Calling of an organization session to be held in Cincinnati at the time of the 1940 Annual Meeting of the Ohio State Medical Association, May 14, 15 and 16.
- "2. Development of an order of business and procedure for that session.
- "3. Preparation of a suggested constitution and by-laws to be adopted at the organization session at Cincinnati so that the Woman's Auxiliary can be officially created.

"In this preliminary report the committee presents certain recommendations regarding Nos. 1 and 2. In a later report the committee expects to present for consideration of The Council a suggested constitution and by-laws, based on information and data obtained from other state medical associations and state woman's auxiliaries.

"With respect to point No. 1 your committee offers the following recommendations:

"(a) That the President be authorized to send a communication to the president of each component medical society announcing that a meeting for the purpose of organizing a Woman's Auxiliary to the Ohio State Medical Association will be held at Hotel Gibson, Cincinnati, on Wednesday morning and afternoon, May 15.

"(b) That the communication request the president of each component medical society, with the permission of the society, to appoint the wife of some member of the society as a delegate from that county to the Woman's Auxiliary Organization Session on May 15, or, if a local Woman's Auxiliary is in existence, to officially request the local auxiliary to select one of its members to attend the Cincinnati meeting as the official representative of that county.

"(c) That the president or secretary of each component society file with the Executive Secretary of the State Association, at least 30 days prior to the date of the Cincinnati Annual Meeting, the name of the woman selected to represent his county at the Woman's Auxiliary Organization Session.

"The following recommendations concerning the order of business and procedure at the proposed session on May 15 are offered:

"1. That the May 15 meeting be called to order by the President of the Ohio State Medical Association at 10:00 A.M., at which time the President will be expected to explain the purposes of the meeting and request nominees for the offices of temporary president and temporary secretary.

"2. Election of temporary president and temporary secretary.

"3. Appointment of Nominating Committee by the temporary president consisting of one representative from each Councilor district of the Ohio State Medical Association.

"4. Presentation for consideration of the assembly of a suggested constitution and by-laws.

"5. Miscellaneous business.

"6. Recess until 2:30 P.M.

"7. Afternoon session starting at 2:30 P.M.

"8. Adoption of constitution and by-laws.

"9. Report of Nominating Committee and election of officers.

"10. Transaction of necessary business in compliance with the constitution and by-laws.

"11. New and miscellaneous business.

"12. Adjournment.

"Also, your committee offers the following general recommendations:

"(a) Following receipt of the names of women selected by the counties to attend the organization meeting, the Executive Secretary send each an official communication with information regarding the May 15 sessions, etc.

"(b) That any expenses involved in the holding of such meeting be listed as a part of Annual Meeting expenses and subject to the usual regulations governing the expenditure of State Association funds.

"(c) That members of The Council contact

county societies within their respective districts on this matter in order to provide county societies with information and to stimulate the selection of county society representatives.

"(d) That members of The Council discourage the organization of local Woman's Auxiliaries until after the organization meeting on May 15 when proper arrangements can be made for the formation of a "model" constitution and by-laws for local auxiliaries, and steps taken to work out procedure for the organization of local units, in compliance with the constitution and by-laws for the state auxiliary to be adopted on May 15."

REPORTS OF COMMITTEE ON PUBLIC RELATIONS AND ECONOMICS

November 1 Meeting—On behalf of the Committee on Public Relations and Economics the following report of the transactions of the committee at a meeting on November 1, 1939, was submitted:

The meeting of the committee on that day was held for the specific purpose of discussing with Dr. R. H. Markwith, State Director of Health, certain plans and contemplated activities of the State Department of Health to be financed primarily from Federal funds. Dr. Markwith stated that between now and June 30, 1940, Ohio should be in a position to obtain approximately \$57,000 in Federal funds to be used for various kinds of public health programs. He pointed out that approximately \$17,000 would be used for the training of personnel and certain sanitary projects, leaving a balance of \$40,000 for other programs such as a pneumonia program, cancer program, expansion of the present tuberculosis program, and ophthalmia neonatorum and trachoma programs. The director reviewed briefly the requirements of the Federal Government with respect to obtaining such funds and the paper work involved. He said that his purpose in coming to the committee was: First, to find out if the committee felt such money could be used advantageously in Ohio; and, second, what programs should be undertaken and how operated.

Following a discussion of Dr. Markwith's suggestions the committee approved the following recommendations:

1. That the State Director of Health make application for the funds referred to above.

2. That such funds be used only for educational work and the furnishing of materials and services for indigents in counties where the need is found to be the greatest.

3. That the major portion of the funds be used for the eye programs and pneumonia program.

4. That part of the money be used for the purchase of sera and drugs used in the treatment of pneumonia, such to be made available to physicians treating indigent cases.

5. That physicians participating in the treatment of cases under the eye programs be selected

by the director and the Public Health Council on the basis of their fitness and ability.

6. That physicians rendering treatment as a part of the above proposed programs be paid on a fee basis.

7. That it might be desirable for the director to select one or more competent physicians to act in a consulting and advisory capacity to the State Department of Health and to physicians rendering services on a fee basis as a part of such programs; such consultants to be paid a salary on a part-time or full-time basis at the discretion of the director.

8. That funds set aside for the cancer and tuberculosis programs be used solely for educational work, including efforts to coordinate activities now being carried on by various groups mutually interested in these fields.

Committee on Medical Service Plans—At the November 1 meeting, Dr. Smith, the President, announced the appointment of the following as members of a special committee authorized by The Council on October 8 to work under the jurisdiction of the Committee on Public Relations and Economics to study the availability of medical services for the low income groups and the feasibility of establishing voluntary medical service plans on an insurance basis:

Dr. David A. Tucker, Jr., Cincinnati, chairman; Dr. Ralph M. Watkins, Cleveland; Dr. Jonathan Forman, Columbus; Dr. Fred M. Douglass, Toledo; Dr. Dow Allard, Portsmouth; Dr. G. A. Woodhouse, Pleasant Hill; Dr. Carl R. Damron, Mansfield; Dr. Robt. T. Allison, Jr., Akron.

Section on Anesthesia—At the same meeting Dr. K. C. McCarthy, Toledo, representing the Toledo Society of Anesthetists, discussed with the committee the request which has been filed with the American Medical Association by various societies of anesthetists for the establishment of a Section on Anesthesia by the A.M.A. or the combination of anesthesia with some existing section. The committee voted to recommend to The Council that The Council instruct Ohio's A.M.A. delegates to support the national societies of anesthetists in their move to have the A.M.A. establish a separate section on anesthesia.

On motion by Dr. Sherburne, seconded by Dr. Rutledge and carried, the foregoing report and recommendations of the committee were approved.

November 26 Meeting—A joint meeting of the Committee on Public Relations and Economics and the Committee on Medical Service Plans (appointed by the President at the November 1 meeting of the committee) was held on Sunday, November 26. Preliminary plans for the activities of the committee were discussed and arrange-

ments made for supplying committee members with data on medical service plans now in operation or contemplated in other states. The Committee on Medical Service Plans voted to hold its next meeting in Columbus on Sunday, January 21.

Legislative Activities—It was recommended that local legislative committeemen be requested to interview Ohio's Congressmen before January 1 regarding the policy of the Ohio State Medical Association with respect to Federal medical and public health proposals. The Executive Secretary was instructed to prepare a statement of policy to be submitted to the members of the Committee on Public Relations and Economics by mail and subsequently to The Council (see later reference in these minutes regarding action of Council on statement of policy). Activities of the farm organizations with respect to the organization of medical cooperatives were discussed by the committee. The recently announced Eight-Point Platform of the American Medical Association was reviewed.

National Physicians' Committee—Activities of the newly-organized "National Physicians' Committee for the Extension of Medical Service" were discussed. It was the sense of the committee that affiliation with such committee is a matter to be decided individually by members of the medical profession.

Public Education—Preparation of a newspaper release by the Bureau of Public Education on the creation and objectives of the new Committee on Medical Service Plans was authorized. A poster for distribution to members for their offices, which had been prepared by the Bureau, was analyzed and the committee recommended that the proposition be submitted to The Council for consideration. (See reference in these minutes to action of Council approving distribution of the poster.) The Bureau reported considerable success to date in the organization of a Speakers' Bureau through which lay groups can be provided with physician-speakers on medical and public health questions and social and economic matters affecting the practice of medicine.

On motion by Dr. Rutledge, seconded by Dr. Sherburne and carried, the report and recommendations of the committee based on its meeting on November 26 were approved.

POLICY ON MEDICAL AND HEALTH PROPOSALS AND PROGRAMS

A Statement of Policy with respect to medical and public health proposals, present public health and medical programs, and the expansion of activities designed to make public health safeguards and medical services more readily available to the citizens of Ohio was discussed at length by The Council. Recommendations of

members of the Committee on Public Relations and Economics were reviewed. After very careful consideration of the important problems involved and analysis of existing policies promulgated by the House of Delegates of the State Association, The Council, on motion by Dr. Hein, seconded by Dr. Schriver and carried, adopted a statement setting forth the attitude of the Ohio State Medical Association and recommending lines of endeavor which will bring the advantages and benefits of preventive medicine and necessary medical care within the reach of all persons in Ohio. (See pages 73 and 74 this issue of *The Journal* for Statement of Policy.)

ACTIVITIES OF BUREAU OF PUBLIC EDUCATION

Mr. Aszling, Director of the Bureau of Public Education, presented a report of the activities of the Bureau since the last meeting of The Council, especially with respect to success in the placement of newspaper releases and in obtaining suggestions for speakers to address lay gatherings.

Poster Authorized—Preparation of a poster to be mailed to each member of the State Association for presentation in his office was authorized, on motion by Dr. Skipp, seconded by Dr. Rutledge and carried. (See cover page and article on page 75 this issue of *The Journal*.)

MISCELLANEOUS

Annual Meeting—A report on progress with respect to the formation of the program for the 1940 Annual Meeting was presented on behalf of the Committee on Scientific Work. It was reported that out-of-state guest speakers had been obtained; 20 round-table conferences arranged; space for 46 technical exhibits sold; and plans made for 19 educational and scientific exhibits.

Poor Relief—A report of a meeting of the Committee on Poor Relief held on October 29, 1939, referred to in the article published in the December, 1939, issue of *The Journal*, pages 1334 and 1335, was presented by Mr. Saville. Following a general discussion of the poor relief situation, the report and the activities of the Committee on Poor Relief were approved, on motion by Dr. Sherburne, seconded by Dr. Beer and carried.

A.M.A. Conference—Dr. Forman presented a report on the Annual Conference of State Secretaries and Editors held by the American Medical Association at Chicago the week-end of November 17, which was attended by him, the Executive Secretary, Assistant Executive Secretary, and Director of the Bureau of Public Education.

Letter on Emigrés—A communication from the Boston Committee on Medical Emigrés was read. On motion by Dr. Klotz, seconded by Dr. Sher-

burne and carried, the communication was placed on file for future reference.

Death of Dr. Stone—A message relative to the death of Dr. Charles W. Stone, Cleveland, member of the Committee on Public Relations and Economics and a former President of the State Association, was received by The Council immediately prior to adjournment. The Executive Secretary was instructed to send a telegram of sympathy to Mrs. Stone and arrange for a floral tribute.

There being no further business The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Important Regulations Governing the Reporting of Live Births, Stillbirths and Abortions

In order to establish uniformity in the reporting of premature live births, stillbirths and abortions, Dr. R. H. Markwith, State Director of Health, has issued the following instructions to physicians and hospitals:

"A birth is regarded as premature if the period of utero-gestation is less than nine (9) calendar months.

"When an infant, after complete expulsion, gives evidence of heart action, breathing, or movement of voluntary muscles, and sex can be determined, it will be regarded as a live birth. These characteristics can be determined after four and one-half (4½) months of utero-gestation, and a completed birth certificate is required to be filed. If heart action, breathing, or movement of voluntary muscles cease, a death certificate must be filed, and the length of time of heart action, breathing, or movement of voluntary muscles must be noted under the caption, 'Age at Death', and a burial or removal permit must be obtained from the local registrar.

"When an infant, after complete expulsion, does not give evidence of heart action, breathing, or movement of voluntary muscles, and sex can be determined, it will be regarded as a stillbirth. These characteristics can be determined after four and one-half (4½) months of utero-gestation, and a birth certificate must be filed, indicating in the place of name of infant, the word 'Stillbirth', and also a completed death certificate will be required to be filed. A burial or removal permit must be obtained from the local registrar.

"The expulsion of an ovum prior to four and one-half (4½) months of utero-gestation, which does not give evidence of heart action, breathing or movement of voluntary muscles, and sex cannot be determined, will be classified as an abortion or miscarriage, and a birth or death certificate is not required."

Methods of Meeting Health and Medical Needs in Ohio Are Recommended in Official Pronouncement by The Council of the Ohio State Medical Association on Dec. 10

FIFTEEN recommendations for meeting health and medical needs of the citizens of Ohio and to serve as a basis for sound and workable programs to that end are offered by the Ohio State Medical Association, through official action of The Council, as an answer to those sponsoring proposals to "revolutionize" health and medical services throughout the United States.

The statement of policy, in which the recommendation for immediate and future action was incorporated, was adopted by The Council in regular session in Columbus on December 10, 1939.

The purpose of The Council in adopting a platform of this kind is two-fold. In the first place, it presents definite, constructive ways of meeting apparent health and medical needs in Ohio. Secondly, it will serve as a guide to the members of the Ohio State Medical Association and component medical societies in efforts now being made by them to inaugurate practical programs to bring the advantages of preventive medicine and adequate medical care within the reach of all persons in Ohio.

As emphasized in the statement, reading in full as follows, Ohio can meet the needs of Ohio citizens through proper cooperation on the part of already established public health services, the medical profession and the public and by putting into effect the recommendations which are suggested.

* * *

A CONSTRUCTIVE APPROACH

(Statement of Policy by the Ohio State Medical Association)

IT is the sincere desire of the medical profession of Ohio to bring the advantages and benefits of preventive medicine and necessary medical care within the reach of all persons in this state, regardless of their economic position.

"Services for the protection of public health and facilities for providing good medical care in Ohio are equal to those of any other state—superior to those of many states. At the present time the sickness and death rates of Ohio compare favorably with those of any other state. Incidentally, recent data show that today the sickness and death rates of the entire United States are lower than those of any other great country.

"Despite this favorable situation which has been brought about through already established public health services as well as by the present system of private practice of medicine, efforts are being made to persuade Ohio citizens that present programs and technics are antiquated and that radical substitutions must be adopted.

"Proposals to 'revolutionize' health and medical services throughout the United States have been

advanced. At the next regular session of the United States Congress, convening in January, the national legislative body may be asked to enact one or more of these proposals. Proponents of these measures visualize a gigantic Federal health program, to be financed through taxation, which of course would be subject to political domination. In return for additional Federal hand-outs in the form of so-called grants-in-aid, Ohio and the other states would be expected to inaugurate systems of state-Federal subsidized medical service and to establish health services virtually controlled by one or several Federal agencies.

"The medical profession of Ohio is convinced that when the citizens of Ohio fully realize the implications of such proposals, they will refuse to support them, not only because they will resent increased Federal control and dictation over health and medical services in Ohio, but also because the inevitable results of politically-controlled health and medical services are the lowering of the standards of health protection and an inferior brand of medical care.

"As in all things, there is room for improve-

ment in this state in present methods of protecting the health of the people and in distributing medical services. Sound and workable plans to bring this about have been developed and new ones are being inaugurated through the cooperation of existing Ohio agencies, the medical profession and the people of this state. Health and medical problems and needs in Ohio can be met without exorbitant public expenditure, without regimenting the physicians of the state, without an unlimited increase in the powers and duties of Federal bureaus, and without abandonment of the principles of self-reliance, free will and personal responsibility on the part of the citizens of Ohio.

"Assuming that there is a need for some improvements and that this state is capable of taking the initiative, the Ohio State Medical Association, whose membership numbers 6,400 physicians and surgeons, offers the following recommendations as the basis for a constructive approach:

"1. Necessary activities of the State Department of Health and the employment of competent professional and technical personnel within the department should be financed as far as possible from state funds.

"2. Local political subdivisions should be encouraged to provide adequate funds for the efficient operation of county and city health departments.

"3. Present activities of the state and local health departments in Ohio should be expanded and new public health programs undertaken only after their need has been determined.

"4. State-aid should be made available, if resources will permit, to local health departments on proof that aid is needed to maintain necessary services.

"5. Federal funds should not be used by state and local political subdivisions unless state and local funds for necessary public health activities are inadequate to finance such services.

"6. Administrative control should be vested in local health departments in so far as possible, with the state department and Federal authorities acting in an advisory and coordinating capacity.

"7. To increase efficiency in the medical and health activities undertaken by the Federal Government, an agency supervised by physicians should be established under which would be coordinated and administered all the medical and health functions of the Federal Government, exclusive of those of the Army and Navy.

"8. Health departments should work in close cooperation with physicians in private practice and recognized medical societies in developing health programs.

"9. Adequate medical care should be brought within the reach of all Ohio citizens. When needed, local or state funds administered by official relief and public assistance agencies should be made available to meet the costs of providing such medical service for the indigent and medically indigent. Administration of medical care programs for the indigent should be a function of local relief and public assistance agencies, working in cooperation with the local medical profession.

"10. Medical care programs should assure the recipients of such services the right to select their own physician and the confidential patient-physician relationship should be maintained. Participation in public health programs by physicians in private practice should be encouraged.

"11. Educational programs to acquaint the citizens of Ohio with the benefits of preventive and curative medicine and to inform them about programs developed to provide them with health and medical services should be sponsored by the medical profession and public health agencies, individually and jointly.

"12. Advisory committees composed of physicians in private practice should be established in every county by health and public assistance agencies to act as a liaison between such agencies and the medical profession and to promote proper understanding, efficiency and the coordination of activities.

"13. Should the extension of health and medical services be found necessary, already existing local facilities, services, and institutions should be utilized to their capacity before new facilities are developed.

"14. The feasibility of programs to assist the low-wage earner in Ohio in financing medical care for himself and his family should be studied by the medical profession in communities where there is an apparent need for such programs. Such a study is being made now by committees of the Ohio State Medical Association.

"15. In all activities to make preventive services and medical care more readily available to the people of Ohio, the highest standards of medical practice should be maintained to insure the quality of such services."

(Adopted December 10, 1939, by The Council, Ohio State Medical Association.)

You Know . . .

*That the American system of
medical practice is in danger*

But, Do YOUR Patients Know It?

Here's a graphic way to tell them—

When you receive, within a few days, your copy of the poster reproduced on the front cover of *The Journal*, display it prominently in your reception room.

And when your patients comment on it—as they will—tell them why it is to THEIR interest to keep the practice of medicine free of political domination and regimentation.

Posters in the reception rooms of the 6,400 members of the Ohio State Medical Association will attract the attention of countless Ohio citizens. This is important, because the citizens of the country will determine the course of American medicine.

“Let's Keep American Medicine the Best”

Pertinent Questions and Answers About Medical Provisions of Poor Relief Law and Its Administrative Features

PROVISION for medical care under the new Ohio Poor Relief Act has been the subject of a number of bulletins issued by the State Headquarters Office to officers of the county medical societies since the act became effective June 9, 1939. Also, many county societies have worked out a satisfactory program for the medical care of the indigent on the basis of the model plan suggested by the Committee on Poor Relief of the Ohio State Medical Association. (December, 1939, issue *The Ohio State Medical Journal*, pages 1334-5.)

However, inquiries from individual members indicate that some of the innovations of the new poor relief law need further explanation.

For that reason *The Journal* presents the following catechism, with the hope that the answers will assist its readers in a better understanding of some of the provisions of the law.

* * *

Question No. 1: Can poor relief funds be used for the payment of medical services to the poor?

Answer: They can. The act states that "poor relief" may take the form of "work relief", "direct relief" or "medical care".

Question No. 2: What is the definition of medical care?

Answer: The definition reads as follows: "Medical care" means medicines and the services, wherever rendered of a physician or surgeon or the emergency services of a dentist, furnished at public expense".

Question No. 3: Who is responsible for the financing and administering of the medical care of the poor?

Answer: County commissioners or city officials, NOT township trustees. County commissioners may name township trustees to act as their agents on relief matters.

Question No. 4: Does the act make any provision for hospitalization?

Answer: No. Hospitalization continues to be a responsibility of city officials and township trustees.

Question No. 5: Does the State Department of Public Welfare set up local medical care plans or tell local communities what kind of plan they should have?

Answer: No. The department believes that this is a matter to be decided by the local relief authorities in cooperation with county medical societies. The Department's principal responsibility under the act is the allocation of state funds. So long as there are no abuses in the disbursement of relief funds, it is the

Department's policy not to interfere with policies adopted by local officials.

Question No. 6: What basis is used by the state in the distribution of relief funds to the local relief areas?

Answer: The Legislature appropriated \$20,000,000 to the Department of Public Welfare for poor relief during 1939 and 1940, the bill specifying how much can be distributed each month. This allocation is made on the ratio of lawful obligations incurred by the local relief areas to the total of the appropriation made to the Department of Public Welfare for each particular month. For instance, the total obligations of the local relief areas during November was \$2,013,505.87, and the allocation provided by law for that month was \$1,000,000. The ratio was 49.7 per cent, and each county or city relief area was reimbursed for its lawful poor relief obligations to that extent.

Question No. 7: Is there any limitation on the proportion of poor relief funds that can be spent for medical care?

Answer: No. This is a matter of policy to be determined by the local relief officials.

Question No. 8: Does a person have to be actually "on relief" to receive medical care under the provisions of the act?

Answer: No. The law says that "relief may be partial or total or it may be temporary or permanent". Partial relief may take the form of medical care for a person who is self-supporting in so far as his other needs are concerned.

Question No. 9: What is the function of the county medical society in working out a satisfactory program for the medical care of the poor?

Answer: Obviously, the officers of each county medical society or a committee appointed for that purpose, should confer with officials of the local relief areas and suggest a plan that will insure necessary medical care to those who need it on a basis that will be acceptable to the members of the society. Many of the county societies in the state have done this, using the model plan of the State Association's Committee on Poor Relief as a basis for negotiation.

Question No. 10: Is there a state-wide schedule of fees for medical care of the poor?

Answer: No. This is a matter to be determined by local relief officials and representatives of the county medical society.

Trustees of County Hospital Within Legal Rights in Making Rules Which Exclude Osteopaths, Attorney General Holds

THE management of a hospital, whether private or public has the legal authority to adopt rules and regulations governing the eligibility of those seeking membership on the hospital's medical and surgical staff and the right to practice in the institution.

This statement has been made on more than one occasion in *The Journal* and court decisions have been cited to support it.

The most recent pronouncement in support of the above sound policy is an informal opinion issued on December 8, 1939, by Hon. Thomas J. Herbert, Attorney General of Ohio, in reply to a communication from Lester W. Donaldson, Painesville, prosecuting attorney of Lake County.

In his communication, Mr. Donaldson referred to section 3127, et seq., General Code of Ohio; set forth a statement of facts and asked a specific question. His request for an opinion said in part:

STATEMENT OF FACTS

"Under authority of the above quoted section, the Trustees of Lake County Memorial Hospital have adopted certain rules for the operation of the hospital. One of these rules provides that 'Membership on the (medical) staff (of the hospital) shall be restricted to physicians and surgeons who are (a) full graduates in medicine from a school recognized by the American Medical Association, in good standing and legally licensed to practice in Ohio; (b) competent in their respective fields, and (c) worthy in character and in matters of professional ethics.' We are enclosing herewith a copy of the rules in full, which have been adopted by the Trustees of the Hospital.

"The effect of these rules is to deny to certain persons, namely osteopaths, chiropractors and others, the use of the hospital.

"Do the Trustees of a county owned hospital, such as the Lake County Memorial Hospital, have the authority to adopt rules which in effect prevent licensed practitioners, such as osteopaths and chiropractors from practicing their profession in the hospital?"

OPINION OF ATTORNEY GENERAL

Attorney General Herbert, in pointing out that the trustees of Lake County Memorial Hospital did not exceed their authority in the adoption of the rules and regulations referred to, said:

"By virtue of the terms of section 3127, et seq., General Code, the management and control of a county hospital, provided for in such section, is

committed to boards of trustees. The duties and powers of such trustees are prescribed and conferred by section 3127, General Code, which, in so far as the same is pertinent hereto, reads as follows:

"Upon the appointment and qualification of such trustees as herein provided, they shall organize by the election of one of their members as president and another as clerk.

"Such board shall hold meetings at least once a month, and shall adopt necessary rules for the regulation of its business, and keep a complete record of its proceedings. Three members of such board shall constitute a quorum.

"Such board shall assume and continue the operation of such hospital. It shall have the entire management and control of the hospital and shall establish such rules for the government thereof and the admission of persons thereto as it deems expedient; it shall have control of the property of the hospital and deposit all monies thereof with the county treasurer to the credit of the hospital fund; and the same shall be paid out only for the maintenance and operation of such hospital, on the warrant of the county auditor, issued pursuant to the orders of the trustees.'

"It will be noted from the above that the board of trustees of a county hospital is required to establish 'such rules for the government thereof*** as it deems expedient'. This language confers almost unrestricted powers with respect to the management and control of such hospital. Such being the case, it would clearly appear that the authority conferred by statute is without question broad enough to permit the adoption of the rule such as it here under consideration."

CONSTITUTIONAL QUESTION RAISED

Although the question of constitutional rights was not raised specifically, the Attorney General made the following observations on this phase:

"Your question, however, concerns itself not only with the extent of powers conferred upon such trustees, but also with the validity of the rule under consideration, that is, whether or not such a rule would contravene the constitutional rights of a licensed practitioner who by the operation thereof would be excluded from practicing his profession in such county hospital.

"In regard thereto, you are advised that it is a rule of this office, consistently adhered to, to refrain from rendering an opinion on the constitutionality of a law, inasmuch as I have always

considered this function as probably the highest exercised by the courts.

"I might state, however, in connection herewith, the Supreme Court of the United States, in the case of *Hayman v. City of Galveston*, 273 U. S. 414, held that a classification which excludes certain practitioners of medicine from the privileges of a state hospital is not a denial of the equal protection of the laws."

WHAT U. S. SUPREME COURT SAID

The Attorney General did not furnish verbatim excerpts from the United States Supreme Court decision in the *Hayman* case. One paragraph from that decision, reading as follows, would appear to leave no doubt regarding the constitutionality of actions by hospital executives in excluding certain practitioners from their institution: To quote:

"But the only protection claimed here is that of the appellant's privilege to practice his calling. However extensive that protection may be in other situations, it cannot, we think, be said that all licensed physicians have a constitutional right to practice their profession in a hospital maintained by a state or a political subdivision. . . . It is not incumbent on the state to maintain a hospital for the private practice of medicine. . . . We cannot say that a regulation excluding from the conduct of a hospital the devotees of some of the numerous systems or methods of treating diseases authorized to practice in Texas is unreasonable or arbitrary. In the management of a hospital quite apart from its use for educational purposes, some choice in methods of treatment would seem inevitable, and a selection based upon a classification having some basis in the exercise of the judgment of the state board whose action is challenged is not a denial of the equal protection of the laws." (*Hayman v. City of Galveston*, 1927, 47 Sup. Ct. 363.)

OTHER DECISIONS

A half dozen or more additional decisions in line with the ruling of the United States Supreme Court could be cited. Of particular importance, because of the soundness of the court's reasoning, is a decision of the Supreme Court of Colorado in denying the appeal of an osteopath who had been excluded from a county hospital. In that case, *Newton v. Board of Commissioners of Weld County* (1929) 282, P. 1068 the Colorado court said:

"A physician has no constitutional or statutory right to practice his profession in a county hospital. The county board has complete supervision and control of county hospitals in this state. A regulation excluding from the county hospital, or the right to practice therein, the devotees of some of the numerous systems or methods of treating diseases authorized to practice the profession in Colorado is neither unreasonable nor arbitrary. Some choice of methods necessarily exists, and we cannot say that in the case at bar the county board of commissioners did not have an adequate basis for its resolution. Neither can we say that this resolution was not justified upon the ground, which abundantly appears from this

record, that, if the right to practice in the county hospitals is open to all the different schools of medicine, there would be constant jealousies and dissatisfaction between the rival schools of medicine which probably might or would greatly lessen the usefulness of the public hospital. The court cannot substitute its judgment for that of the county board. Not being contrary to any provision of the federal or state constitution or of the laws of the state, its determination cannot be set aside by us."

A.M.A. PROVISION

Although it has no bearing on the legal angles, the following provision incorporated in the "Essentials of a Registered Hospital" issued by the Council on Medical Education and Hospitals of the American Medical Association is pertinent in as much as a hospital to win approval by the A.M.A. and obtain a place on the list of registered hospitals must comply with all the "essentials" designated:

"The staff should be organized and composed of regular physicians who are properly qualified as to training, licensure and ethical standing. Staff membership and the use of the hospital's facilities must be limited to doctors in medicine. Where cult practitioners, osteopaths, chiropractors or other healers outside the scope of regular medicine are allowed to use the hospital's diagnostic facilities, to prescribe or treat patients in the hospital, or to enter orders or other data on the case records, such a hospital obviously cannot be recognized or endorsed by the American Medical Association."

SAME WITH CITY HOSPITAL

The situation with respect to the regulation of a staff for a municipal hospital is practically the same as that of a county hospital. Under Section 4035 of the General Code of Ohio, the director of public safety of a city is charged with the entire control and management of a municipal hospital and "subject to the ordinances of council, shall establish such rules for its government and the admission of persons to its privileges, as he deems expedient."

To summarize:

1. The governing board of a county hospital has the legal right to make rules governing staff privileges and may refuse any practitioner the right to use the hospital in case he cannot qualify under such rules.

2. Exclusion of a practitioner under such rules is not a denial of constitutional rights, according to the United States Supreme Court.

3. To obtain listing as a "Registered Hospital" by the American Medical Association, a hospital must confine its staff to doctors of medicine.

4. Discretion as to hospital standards and what practices and procedures are for the best interests of the public served by a hospital rests with the governing agency of the institution.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Improvement of health and medical services for those residing in rural communities has been a subject often discussed during recent years

Right and Wrong

Ways of Meeting

Rural Medical Needs

at farm organization gatherings in Ohio. Such questions should be discussed. On the other hand, hasty action on the part of interested groups should be avoided. So-called "solutions" are not easily found, especially when such an involved question is at stake. Too often, "solutions" turn out to be duds or boomerangs, destructive in nature.

Doubtless needed improvements in the health and medical programs for the rural citizens of Ohio can be made if there is the right degree of cooperation between farm groups and the medical profession. Also, sound procedure and principles must be the basis for all activity in order to protect the interests of the rural population.

What are the current trends? Here are some examples of trends in one direction. They need scrutiny and analysis by members of the medical profession.

At the recent annual convention of the Ohio Farm Bureau in Columbus, the president of that organization in his annual address stated that "there should be no hesitation" in promulgating plans for "cooperative hospital and health service" in Ohio.

During the same convention, the following resolution was adopted:

"Resolved that we recommend that the Ohio Farm Bureau make further study of cooperative medicine and furnish information to our membership; that they assist in the developing of cooperative hospitalization and health associations; and prepare amendments to Ohio laws wherever necessary to permit such activity."

A second resolution reading as follows also was adopted:

"Resolved that we favor enactment of a general cooperative law that will permit the unlimited development and progress of cooperative activities."

In the November, 1939, issue of the "Advisory Council News," issued monthly to district advisory councils of the Ohio Farm Bureau, considerable space was devoted to the question of medical cooperatives. Under the heading of "New Busi-

ness", page 2 of that issue, appeared the following article:

"Shall We Work For A Cooperative Medicine Law?"

"Legally the people of Ohio are not free to organize medical cooperatives. The law states that a corporation may not practice medicine, and this has been interpreted to mean that any attempt made to form a medical cooperative would come within the restrictions of this law.

"In order to clear the legal ground for a co-op medical program our task seems clear. We must obtain a law enabling us to operate as a medical co-op. This is not the first time the Farm Bureau has had to wage a legislative fight to gain the right to organize cooperatives.

"Will your Council take up this problem by discussing the following questions:

"1. Is a Co-op Medicine Law Worth Fighting For?

"2. If so, how can our County Farm Bureau make its strength felt at the next Legislative Assembly?

"Shall we discuss the matter with our county representative to the legislature?

"Will your Council support a state-wide campaign by:

"1. Studying cooperative medicine and getting as many neighbors as possible interested?

"2. Sending letters to your representative when the time comes to act?

"3. Sending a delegation to the State House when the Co-op Medical Law comes before the legislature?"

The report of the resolutions committee of the National Grange presented at the recent annual meeting of that organization included the following statement, which was adopted:

"The National Grange opposes any government system of socialized medicine but supports community or cooperative projects of such nature."

In reporting these facts to show current trends, we cannot refrain from making two observations, namely:

Does this mean that the medical profession and farm groups cannot get together on the question of health and medical services for rural resi-

dents? In our opinion, it indicates nothing of the sort. The two groups can arrive at satisfactory understandings if the opportunity for discussions is afforded.

Shall, or should, the medical profession enter fields of activity which are by right those of farm groups. Of course, it should not. By the same token should farm groups extend its endeavors to health and medical fields, except as groups interested in the public welfare—and what reputable group isn't? The answer is apparent—at least to those who realize that the medical profession is the group best qualified to provide the ways and means of meeting health needs and medical problems.

Whatever is best for the public remains best for the doctor. The converse is also true.—*The Nebraska State Medical Journal.*

Through the death of Dr. Charles W. Stone, Cleveland, member of the Committee on Public Relations and Economics and delegate to the American Medical Association, a former president and member of The Council, the Ohio State Medical Association has lost one of its real leaders.

Medicine Loses Real Leader Through Death of Charles W. Stone

Columns could be written regarding Charles W. Stone, the man, the scholar, and the physician. Those who knew him do not have to be told of his many sterling qualities. Mere words cannot adequately describe him to those who did not have the good fortune to list him among their friends and acquaintances. We must confess an inability to express in words what we know about him or to interpret the emotions of those who are saddened at his passing.

But, we can set forth a few reasons why his place in the ranks of the leaders of medical organization will be hard to fill, hoping that those who are destined to carry on will benefit by the example which he has set.

When Charles W. Stone took an assignment, he considered acceptance a pledge to meet responsibilities and to follow through, no matter how much time and effort were required. He never shirked work involved in fulfilling a promise. He never permitted personalities, personal feelings or bias to influence his decisions once he had determined in his own mind that such decisions were fundamentally correct and basically fair. All with something to say received an attentive hearing. Every question was thoroughly analyzed before judgment was rendered. Principle, rather than expediency, governed his opinions. He had the courage of his convictions. Possessed of qualities of real leadership, he led when neces-

sary but in a way which won the confidence and respect of his associates. Neither ultra progressive nor hide-bound conservative he passed on each issue in the light of its own merits, always having in mind what he believed to be best for the majority of those affected.

Those who will take up where he left off will be wise if they strive to attain the qualities and characteristics which made Dr. Stone an outstanding leader and worker in and for his profession.

He who seeks security through surrender of liberty loses both.—George Washington.

According to the press and news columns of some of our contemporaries: Hugh Cabot, Channing Frothingham, et al, have inaugurated a "budget health-service" plan in Massachusetts despite the fact that the proposal was turned down by the Council of the Massachusetts Medical Society.

* * *

Violation of the code of legal ethics is charged against Assistant U. S. Attorney General Thurman Arnold and his associates for having made public statements about the antitrust litigation against the American Medical Association while the case was pending, by the *New York State Medical Journal.*

* * *

Paul deKruif, who can turn out a book on some medical or health subject every fortnight if sufficiently pressed, has announced he is helping to launch a "non-controversial national health law" which is a real mouth-full even for deKruif.

* * *

A new sickness insurance bill for introduction in the "Legislature of New York and those of other states at their next sessions" and which would "permit Federal grants-in-aid" has been drafted by Abraham Epstein and his American Association for Social Security, which might indicate that Mr. Epstein and Senator Wagner have come out of the huddle and are getting ready for the old razzle-dazzle.

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Stop us if you've heard this before: "Basic New Deal policy in months ahead will be to defend existing reforms; not to propose broad new reforms", sayeth the prognosticator in the *United States News*. Page Mr. Ripley, boy!

* * *

Jay Franklin weeps tears in contending that those opposed to governmental medicine are using the war as a smoke screen to attract attention from domestic "problems", stating that

"our own medical needs still remain unsatisfied and constitute a military danger as serious as the loss of many battleships". We had the impression that others were eager to use the war to cover up certain domestic questions and, based on U. S. Public Health Service reports, had an idea that the health of the nation now is the best in its history. But, of course, one can't expect Franklin to be too careful in making deductions.

The bright new uniform, and the pair of sturdy boots are an attraction in these days of financial stress but more precious than all these is liberty—the liberty of self determination for both doctor and patient.—Detroit Medical News.

In a recent issue of the *Wisconsin Medical Journal*, there appeared a set of "ten commandments" for the medical witness, formulated by a Milwaukee physician and read by him before the Milwaukee Bar Association.

Some Good Pointers for the Physician on the Witness Stand

The advice contained in these "commandments" is so sound and so timely, that we are passing them on to readers of this journal, many of whom will find themselves on the witness stand at one time or another during the ensuing year:

"1. Examine your case thoroughly and repeatedly so that you know what you are talking about. Know your facts well. They must be incontrovertible. The opinion you form from these facts is your own, but must be arrived at honestly.

"2. Testify slowly, clearly, simply, and in language that the layman can understand. Forget your Latin medical terms. You are obliged to talk down to the level of intelligence in the jury box in order to get your facts across.

"3. Stick to the unvarnished truth. If you do not, your statements will strike back at you like a boomerang.

"4. Do not become partisan or assume a proprietary interest in the legal proceedings, for if you do, it will diminish your value in the eyes of the court and the jury.

"5. Maintain your dignity and do not advise or consult with an attorney in the courtroom, but sit far away from him. The attorney should prepare his case before he goes into court.

"6. You are not required to answer by 'yes' or 'no' an involved question if such answer places you in the position of the man who was asked, 'Have you stopped beating your wife?' Your 'yes' would be a lie and your 'no' a prevarication.

"7. If a long, involved, hypothetical question is to be propounded to you, request that it be given to you in writing before you are put on the stand so that you may thoroughly study it and not embarrass your attorney by your answer.

"8. Refuse to answer any question which puts you into some other field of medicine than your own. You may always say, 'I cannot qualify.'

"9. Do not allow an attorney of the blustering, bull-doing type to anger you or 'get your goat.' The purpose of this line of questioning is to throw you off guard.

"10. Remember that at times the most valuable words in the English language are, 'I do not know.'"

Membership and activity in the county medical society is the best evidence of a doctor's conformity to the highest standards of medical practice.—The Journal of the Medical Society of New Jersey.

"What can I do"? is a question which a physician frequently asks himself, and others, when he listens and reads about some of the goings-on which directly affect medical practice. True enough, not enough physicians ask the question but it must be admitted that many more are doing so nowadays.

A book could be written in answer to this one query. But, these suggestions will have to suffice for the moment:

1. Take an active interest in making your county medical society and state association strong and aggressive agencies so that they can speak with authority and influence for you and the rest of the profession.

2. Familiarize yourself with the issues. Be prepared to present strong arguments in support of your attitude and the official policies of your county medical society.

3. Present your views to your patients and acquaintances. The public must be informed. After all, the public will decide the outcome. This can be done through public addresses, personal conferences and by displaying in your office posters such as the one pictured on the cover page of this issue of *The Journal*, a copy of which will be sent to each member of the State Association in the near future.

4. Let your representatives in the Ohio General Assembly and in the United States Congress know how you feel about medical and health proposals.

These are not all the answers, but they are among the more important ones.

To amplify Point No. 4, permit us to quote

the following from a recent bulletin issued to the members of the Cincinnati Academy of Medicine which appeals to us as good advice:

"Often the individual physician, in thinking of the surge of social forces going on all about him, and in the face of hostile propaganda attacking the principles he believes in, will say to himself, 'What can I do to change things for the better?' To the individual working alone, it does seem like a hopeless task to raise one's voice against the multitude. Yet a well-known senator in a neighboring state legislature, in discussing the ways of influencing legislators, said that ONE letter received by a congressman or senator from a constituent who shows that he has actually informed himself fully on the subject and presents an ORIGINAL argument that comes clearly and unmistakably out of his own mind and heart, will be far more effective in influencing the legislator than a box full of telegrams and letters that are obviously inspired by a mass production technique.

"This senator also added that there is no one likely to have as much influence with a legislator on health and medical questions as the legislator's own family physician. A heart-to-heart talk between family doctor and legislator, or a friendly letter setting forth the family doctor's views on legislation affecting the practice of medicine will go a long way toward getting the legislator to "see the light" and vote for the public interest in this important field.

"What can YOU do? Take a personal interest in these matters, study them fully and write that personal message to someone you know at Columbus or Washington who is in a position to vote yes or no on issues of such far-reaching effect in the field of medicine and the public health."

Proper definition of respective purposes and purviews is a prophylactic against committee inefficiency.—Rocky Mountain Medical Journal.

Misery loves company. This being the case, the medical profession can make a place on the mourners' bench for the insurance brethren.

Move Over! Make Room for the Insurance Boys Announcement has been made that Senator Robert A. Wagner, who past-masters at playing Santa Claus with the taxpayer's money, proposes to introduce into the next Congress a bill putting the U. S. Government into the business of selling annuities. Obviously, with the taxpayers bearing the costs of overhead, selling, etc., competition on the part of private insurance interests would soon disappear. A lot of people would be forced to seek other employment—if any—and another step toward complete state socialism would have been completed, should the newest Wagner brain-storm become a law.

Sure, the insurance folks are howling to high heaven. Why not? Who can blame them? Chalk up another second in the corner of those who are

feeling the pinch of the creed that government should do everything for everybody with somebody else's money—business men, manufacturers, lawyers, doctors, et cetera.

When a conflict arises between scientific standards and expediency, the politician is bound to choose the latter, which he understands and on which his success depends.—New York Medical Week.

Enlargement of the social security program to include a national medical and health program, larger and more costly than anything now being undertaken by the Federal Government, promises to be a political issue in 1940. Everything is shaping up in that direction.

Who Stands Where and Why? Your Turn To Guess In cogitating on the question, one can't help but wonder about the line-ups. What will be the attitude of the major parties? Where will the various groups within each party stand? How will the individuals receiving prominent mention as party leaders or possible candidates for high office, line up? Your guess is as good as the next.

Because of the official position which he holds now and the aspirations which he cherishes, one can't help wondering how Social Security Administrator Paul V. McNutt, a candidate for the presidency if F.D.R. chooses not to run, stands on the issue. The more we read about him, the more confused we become.

"McNutt Courts Brain Trusters to Kill 'Rep' as Conservative", a headline over a political gossip column states.

Two weeks later we read: "Ickes Tosses Harpoon Into McNutt Hopes; Secretary Says Hoosier Hasn't Liberal Backing."

Writing in the December, 1939, issue of *Survey Graphic* after an interview with Mr. McNutt, Victor Weybright raises some pertinent questions, all of which might be summed up in the sub-heading which the magazine places over the article, namely: "What Sort of Nudge Will the Federal Security Administrator Give to the National Health Program—and in What Direction?"

Mr. Weybright, if we understand him correctly, intimates rather strongly that ardent proponents of government-controlled medicine are squirming and beginning to be pretty skeptical. Read between the lines of the following paragraphs quoted from Mr. Weybright's article, if you will:

"Like the members of the Senate Committee on Education and Labor who subscribed to Senator Murray's preliminary report on last year's Wagner bill, Mr. McNutt does not believe the

original Wagner bill satisfactory. 'I saw manifest on every side a feeling that more study was required.' One side on which he saw it manifested was that of the board of trustees of the American Medical Association, with whom he has consulted in an effort to find the common ground on which organized medicine can meet the advocates of a genuine National Health Program halfway—or perhaps more than halfway, if the more representative house of delegates of the A.M.A. is taken as an index of the sentiment of organized physicians generally.

"A lot of water has gone over the dam since, as governor of Indiana in 1934, Mr. McNutt broke with the trend of modern public health procedure. At that time in the course of reorganizing the state government in the interests of immediate economy, he handed over the responsibility and the state funds for preventive medicine largely to the county medical societies, instead of to full time paid health workers. At that time, too, Governor McNutt abolished or curtailed various state services in a program that was urged if not written by the Indiana State Medical Association. Mr. McNutt is still a decentralizer, an ardently budget-conscious administrator, a lawyer-teacher still extremely sensitive to fellow feeling among the doctors. Will this lead him to shy away from measures that would try to modernize the economics of medicine as science has modernized its practices? There is the risk of his lapsing into a mere professional development of health services, to grants to existing hospitals and such items on the fringes of the basic problem. An adaptation of his Indiana program to the national scene would not be the National Health Program envisaged by Senator Wagner, by organized labor—or by organized farm groups, except to the extent that rural hospital facilities were increased.

"But he is not back in Indiana—and this is not the mid-thirties. 'Our problem now,' he told me, 'is to determine what we can do in the solution of the general health program, how much it will cost, whether we can pay the bill and to make a good and adequate start.'

"Mr. McNutt has wholeheartedly endorsed 'the extension of the benefits of preventive measures to all the people, and medical and hospital care for those who need these services.' Furthermore he adds, 'Medical services must be administered by members of the medical profession.' He has not, however, yet committed himself on the subject of health insurance for the payment of medical expenses; or for disability compensation for the partial reimbursement of wages lost by workers who are sick."

Watching the forces gird themselves for the forthcoming battles and the developments taking place almost daily would be good fun, to put it mildly, if the end-results were not so important and the possibilities so grave. We crave to know more before making any decisions.

To physicians, to whom the preservation of life is a sacred duty, war is a blasphemous anathema. Should it come, however, American medicine must be prepared to bind up its wounds and heal the physical and mental sickness it leaves in its wake.—New York State Journal of Medicine.

Elsewhere in this issue of *The Journal* will be found a statement of policy on health and medical programs and proposals, adopted by The

Statement of Policy of No Value Unless Brought to Life

Council at its meeting on December 10. It should be read and digested by every member of the Ohio State Medical Association.

More than that—it should be put to good use.

The Council's pronouncement sets forth clearly and definitely the policy of the State Association with respect to the responsibilities and activities of government in the sphere of health and medical care. It states in a general way the attitude of the Association toward legislative proposals which are, or would be, in conflict with sound economic, social and medical principles. It offers constructive suggestions as to how existing health and medical needs may be met. It is affirmative in tone and constructive in scope.

Members of the State Association will find it useful in discussing health and medical questions with members of the Congress, members of the State Legislature, other public officials and rank-and-file laymen. It may well serve as the basis for talks before lay groups. It should be helpful as a guide for local policies on these important questions.

Unless put to use, as suggested above, the statement of policy will be of little, if any, value. Certainly, it will have no real influence unless brought to life through follow-up action on the part of individual members, local committees and component societies. The Council has charted the course. The membership must do the steering.

The Code of Ethics is not obsolete. By your observance of it, the entire profession is protected.—Weekly Roster and Medical Digest.

"The most serious menace within the profession is the doctor who charges fees that are too high."

This statement—like *Excessive Charges Is Menace To Himself and Entire Profession* it or not—was made by Dr. Logan Clendening in an article attempting to analyze the present confused state of medicine and medical practice.

Clendening points out that such men and practices are admittedly in the minority, "but are met with too frequently at that". Also, he says that in his opinion, "the best known, busiest and most competent practitioners are the most reasonable in their charges".

Obviously, frank statements of this kind are not popular. But, like it or not, the physician dares not deny that some of the problems now

confronting the entire profession have been caused by practices such as this, involving a few shortsighted members of the profession.

No one with horse sense and possessing a spirit of fairness wants to see a physician rob himself and his family of a comfortable living through slipshod business methods or excessive benevolence. The servant is worthy of his hire. But, situations which deserve special consideration must be dealt with in a sensible manner by the attending physician. A dollar lost today by reducing a bill for services in deserving cases may return tomorrow with a lot of interest in the form of good will and public respect. Many physicians have found out this is the truth. It's something worth considering.

Search for truth, self-sacrifice and altruism has ever been present in the doctors of medicine and as long as these prevail the health of our people will remain at a high level.—Henry A. Luce, M.D., President, Michigan State Medical Society.

The second year of the Ohio State Medical Association's Five-Year Postgraduate Lecture Course came to a close with meetings at Mansfield, December 6, and at Defiance, Chilli-
Second Course of cothe, Cambridge and
Regional Lectures an Troy, December 7.
Outstanding Success Six sessions were
 held in each of the
 five regions, comprising 77 counties, with two
 lectures at each session.

The registration record shows that total attendance at the 30 sessions was 2,426, an average of 81 for each meeting. Individual physicians who attended one or more of the meetings numbered 959.

Designed to make postgraduate education more readily available to physicians, it is quite obvious from the above figures that this important State Association project is serving a useful purpose.

To those who contributed to the success of the course, the membership owes a hearty vote of thanks. Recipients of that expression of appreciation should include the Committee on Education and Sub-Committee on Regional Postgraduate Lectures, which arranged the program; the lecturers, who sacrificed considerable time, without remuneration; and the local chairmen who so faithfully saw that arrangements for the meetings were carried out properly.

Before long the above committees will meet in Columbus to review the results of this year's course and to make plans for next year. The members of those committees are keen to have suggestions for making future courses even more successful and practical for the profession

than the first two. No one has a corner on ideas. Send in yours to the State Headquarters Office, and you can be assured that they will be welcomed and receive the earnest consideration of the committees.

TELEPHONE NUMBER OF COLUMBUS OFFICE CHANGED TO MAIN 7715

Effective December 12, the telephone number of the State Headquarters Office at Columbus was changed to

MAIN 7715

Please jot down this new number on your memo pad for ready reference when you wish to get in touch with that office by phone.

Remember: New number is MAIN 7715.

Warning to Ohio Physicians About Dispenser of Rubber Checks

A rubber-check artist who limits his practice to oculists is the latest addition to the increasing list of confidence men who are duping members of the medical profession with a surprising degree of success. The slicker has a technique all his own. Masquerading as a farmer, he has his eyes examined, and offers to pay the bill immediately with a check for \$30 or more, payable to him, signed by someone else, ostensibly in payment for farm products. Usually there is a notation on the check that it is for "500 baby chicks", sometimes "36 Red Hens", and now and then "corn". In the cases reported, the oculist has deducted the amount of his fee from the check and given the "farmer" the difference in cash. The patient never comes back, but his check always does.

Described as being around 49 years old, about five feet nine or ten inches tall, weighing about 155 pounds, with light sandy hair, blue eyes, and smooth shaven with a ruddy complexion, the man several times has used the name, "W. C. Curran", but "W. C. Cursey" and "J. C. Gardiner" are other aliases. Oddly enough, Missouri appears to have been his principal habitat, but oculists in Texas, North Carolina and New York are still waiting for his return. If he has been in Ohio, no one has admitted it.

The sheriff of Grundy County, Trenton, Missouri would appreciate being notified immediately if anyone fitting the above description, and modus operandi, attempts to add Ohio physicians to his calling list.

More Details Regarding Agreements and Administration of the Michigan State Medical Society Group Service Plan

Part 1 of a digest of the voluntary medical service plan initiated by the Michigan State Medical Society for those in the low-income groups was published in the December, 1939, issue of *The Ohio State Medical Journal*, pages 1341-1343. Part 2 of that digest is presented herewith.

Information concerning medical service plans which are in various stages of development in some other states will be published in subsequent issues of *The Journal*.

Ohio physicians who have ideas on this subject are urged to communicate with Dr. David A. Tucker, 441 Vine St., Cincinnati, chairman of the Committee on Medical Service Plans of the Ohio State Medical Association.

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MICHIGAN MEDICAL SERVICE (Part 2)

(Reproduced from *The Journal of the Michigan State Medical Society*, Dec., 1939)

PERHAPS of most importance to physicians is the matter of the arrangement between the doctors of medicine and Michigan Medical Service.

The first fundamental principle adhered to in the development of the Michigan Medical Service plan was that the present relations between patients and physicians should not be changed except in the detail of making payments to physicians. The present essential principle of free choice of physician has been definitely maintained in the enabling act and in the provisions for the Michigan Medical Service plan. All doctors of medicine licensed to practice in the State of Michigan may register with Michigan Medical Service.

In other respects, the relations between the patient and physician will be the same as in private practice. In private practice physicians have an ethical and legal responsibility to their patients and this responsibility is not changed by Michigan Medical Service. Michigan Medical Service will not undertake to supervise the medical practices of physicians as this is the duty of the medical profession. Local Medical Advisory Committees of physicians will be formed by the medical profession in the community to supervise the relations between local physicians and Michigan Medical Service. District Medical Advisory Boards created by the medical profession will arbitrate questions dealing with professional relations.

PARTICIPATION OF PHYSICIANS

All doctors of medicine licensed and registered under the medical practice act of Michigan are eligible to provide services for the subscribers to the Michigan Medical Service plan. A Registration Application, which will be sent to all

physicians, will indicate that the physician is willing to cooperate with Michigan Medical Service and to provide services for subscribers according to the terms and conditions of the Michigan Medical Service plan. The legal responsibility of physicians who register with Michigan Medical Service toward subscriber-patients will be the same as the present legal responsibility between physicians and patients.

No registration fee will be charged members of the Michigan State Medical Society, inasmuch as the Society has already met organization expenses and will contribute working capital. Non-member physicians will be expected to pay a registration fee equal to the per capita contribution already made on behalf of the physicians from the funds of the Michigan State Medical Society.

FEES

One of the most difficult problems in a medical service plan is the question of medical fees. The Council of the Michigan State Medical Society has given full consideration to this intricate problem.

A short listing of fees has been prepared to indicate the level of payments contemplated by Michigan Medical Service. Such a schedule of fees will be used as a guide by the Medical Advisory Committees in approving payments for services rendered. These fees represent the amounts now charged by physicians for patients in the limited income group eligible for enrollment. Qualified specialists, when called in consultation, will be paid a consultation fee.

The subscription rates on which the Michigan Medical Service plan is based have been determined in accordance with two major factors: (1) Equitable fees for services to be rendered;

(2) Ability to pay of the persons to be served. To be fair to both the public and the profession, equal weight was given to each factor. Every demand that subscription rates be lowered must face the necessity to pay lower fees; and every demand that higher fees be paid must face the necessity to change higher subscription rates.

SERVICES AND PAYMENTS

On the commencement of services for a subscriber, the physician will be asked to send a notice to Michigan Medical Service in order that records pertaining to the subscriber may be checked. At the end of each month in which services have been rendered, the physician will send a report itemizing the services rendered. The report form required will be kept as short and simple as possible.

All reports of services must be received within ten days after the end of the month and failure to furnish a report will invalidate the claim for payment unless the delay could not have reasonably been avoided.

After deducting funds for administrative expenses and reserves, the available funds will be distributed pro rata to the physicians who have submitted reports of service, using the established fee schedule as a basis.

STATE-WIDE PLAN

Early in the development of the medical service plan, it was proposed that county medical societies operate plans on a county-wide basis and that the State Medical Society simply develop a central organization to assist and advise local medical societies. However, the Insurance Department of the State of Michigan recommended the establishment of a state-wide plan with one administrative organization, because of the desirability of uniform subscription rates throughout the state and the necessity for centralizing reserves.

In view of the position taken by the Insurance Department and to avoid duplicating administrative organizations and expenses, The Council proceeded with the development of a proposed state-wide organization which received full approval of the House of Delegates at the meeting in Grand Rapids on September 18, 1939.

CONTROL MEASURES

Physicians have been keenly interested in the arrangements for supervising the rendering of services to subscribers, and the procedures to be used in making payments to physicians who have rendered such services. It is contemplated that, in each Councilor District, a Medical Advisory Board will be established to supervise, as may be necessary, the approval of bills for services rendered. Local Medical Advisory Committees may also be created to cooperate in this function.

Physicians of Michigan should recognize that Michigan Medical Service is their own plan and that its success or failure will be largely dependent on their own actions. The provisions for the Michigan Medical Service plan have received the considered judgment of the Delegates and Councilors of the State Medical Society and embody the fundamental principles recognized as essential for a sound medical service plan. The administration of the plan will be in the hands of a Board of Directors, the majority of whom are practicing doctors of medicine thoroughly conversant with the problems of medicine.

The physicians of Michigan, by their cooperation and sympathetic participation during the initial period of placing the medical service plan into operation, will contribute immeasurably to the success of the plan. The Michigan Medical Service plan offers tremendous possibilities of serving as a real benefit both for persons in the low income group and for physicians.

The success of Michigan Medical Service will preclude the entrance of government or lay groups into the practice of medicine and will ensure the objective toward which the Michigan State Medical Society has been striving—provision of good medical care for all of our people.

Members of the Michigan State Medical Society are urged to familiarize themselves with the Michigan Medical Service plan and to cooperate with the Delegates and Councilors in their efforts to inaugurate a feasible plan of medical care for the limited income and relief groups.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16.

American Medical Association, New York, June 10-14.

Northern Tri-State Medical Association, Battle Creek, Mich., April 9.

American Psychiatric Association, Cincinnati, May 20-24.

Annual Congress on Industrial Health, Chicago, Jan. 15-16.

Midwestern Forum on Allergy, Chicago, Jan. 13-14.

National Tuberculosis Association, Cleveland, June 3-6.

Open New Offices

Among physicians who have recently opened new offices in Ohio are the following: Dr. Austin Coulson, Malta; Drs. Harry and Marianne Geisler, Galion; Dr. Paul Ward, Pemberville; Dr. S. J. Campbell, Bucyrus; Dr. Robert P. Meador, Newark; Dr. William M. Jennings, Sylvania.

Do You Know - - -

A total of 7,518,425 persons, approximately 30 per cent of the total attendance, visited the Medicine and Public Health Building at the 1939 New York World's Fair.

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The Board of Trustees of the American Medical Association recently decided to omit the designation "col." after the names of Negro physicians in the next edition of the American Medical Directory.

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Major Walter Reed of the Medical Corps of the United States Army and Dr. Crawford W. Long, Georgia, will be among those honored in a famous American series of postage stamps to be issued soon.

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The Columbus American Legion, 40 et 8, and the ladies' auxiliary of the Columbus Tuberculosis Society, recently presented the society with a mobile health clinic costing more than \$2,000 for use in the Franklin County Schools. Completely fitted out for tuberculosis testing and diagnosis, the mobile unit is a 21-foot trailer equipped with a portable fluoroscope. The project has the approval of the Columbus Academy of Medicine.

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Dr. Carl A. Wilzbach, health commissioner of Cincinnati, is the new president of the Cincinnati Social Hygiene Society.

* * *

Dr. A. O. DeWeese, Kent, is executive secretary and treasurer of the American School Health Association.

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The Sedgwick Medal, awarded annually by the American Public Health Association for distinguished service in public health, was recently presented to Dr. Thomas Parran, surgeon general of the U. S. Public Health Service.

* * *

During the first year of the premarital physical examination law in New Jersey, 62,764 blood tests were made. Of these tests, 847 were positive, 1.35 per cent. A check of 48,000 tests in four laboratories revealed that about 0.6 per cent of the white persons tested are positive as compared with 11.0 per cent of the Negroes.

* * *

The White House Conference on Children in a Democracy will be held in Washington, January 18-20. The Conference, which had its first meeting in Washington, April 26, 1939, has as its reported purpose, "to consider the relationship between a successful democracy and the children who form an integral part of the democracy".

Student health services have been inaugurated in two more Ohio colleges—at Otterbein College, Westerville, under the direction of Dr. R. K. Edler, and at Marietta College, Marietta, where Dr. Deane H. Northrup is in charge.

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At its 1939 annual convention the American Newspaper Publishers' Association, adopted the report of its Committee on Social Security which urged members to take a very definite interest in the subject of health insurance legislation and particularly the Wagner National Health Bill. "There is no warrant or justification for enacting such legislation at this time," the report said.

* * *

Dr. Sidney McCurdy, supervisor of the Medical Section of the State Industrial Commission, spoke on "The Workmen's Compensation Act", at a meeting of the Toledo Lions Club, Thursday noon, December 7. In the evening he addressed a safety meeting sponsored jointly by the Toledo Safety Council and the Toledo Blade. His subject was "Medical Risks in Industry".

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Mr. Ralph E. Osborne, 1020 Prospect Ave., Toledo, has been appointed business secretary of the United States Chapter of the International College of Surgeons and corresponding secretary of the Board of Examiners.

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The American College of Surgeons has records in its files of 29,195 men and women who have been treated for cancer by X-ray, radium and surgery and now five, ten or 15 years later are entirely free of the disease.

* * *

Speakers at recent sessions of the Wayne County Medical Society, Detroit, included Dr. Russell L. Haden, Cleveland, on the subject, "The Etiology and Diagnosis of Leukemia", and Dr. C. A. Mills, Cincinnati, who gave an address on "Climatic and Weather Influences on Man's Health".

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The Annual Spring Clinic Meeting of the Cleveland Dental Society will be held at the Hotel Statler, Cleveland, April 8-9.

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Whooping cough kills more children under five years of age in Ohio than any other communicable disease.

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At the recent golden jubilee dinner of Christ Hospital, Cincinnati, a portrait of Dr. John C. Oliver was presented to the institution. Dr. Oliver is the last surviving member of the original Christ Hospital staff of 1889.

Forum Discussion Marks 20th Annual Conference of Health Commissioners Held in Columbus, December 14-15

More than 250 public health officers, nurses, and sanitarians representing approximately four-fifths of all local health districts in Ohio participated in a two-day discussion of common problems at the 20th Annual Conference of Health Commissioners held at the Deshler-Wallick Hotel in Columbus Thursday and Friday, December 14 and 15. Called by Dr. R. H. Markwith, State Director of Health, the meeting was a new departure from conferences of former years, when the program consisted of sectional sessions and prepared papers. This year's program was based entirely on questions for discussion submitted by the local health officials themselves.

In his opening address Thursday afternoon Dr. Markwith urged the visiting physicians and nurses "to feel that this is a large staff meeting, and each and every one of you has an important part of this staff meeting". Assuming that the history of Ohio public health falls logically into 20-year divisions, the State Director predicted that the score of years beginning with 1940 will be characterized as an era of "the Golden Rule, a program of doing something".

FUTURE NEEDS

"Doing something about the surveys in which we have found a need for better prenatal care," he continued; "a need that each child should have its birth recorded; a need that infants and pre-school children will be provided with balanced diets; that immunization and vaccination accomplish the greatest results in the pre-school child; that we need have definite programs whereby school children may have their serious physical defects corrected; . . . the continuance of our campaign to stamp out venereal disease; the securing of adequate medical care and hospitalization for the early cases of tuberculosis; to tear the veil of secrecy from cancer and guide those afflicted with the disease to seek medical advice early . . ."

Dr. Markwith commented also on the use of Social Security funds for health services in Ohio and on the amendment to the Social Security Act which applies a merit system to the personnel of participating districts. "For Ohio to take its place in public health in the United States," he declared, "more young physicians should be attracted to the public health field, and these physicians can only be attracted to public health in Ohio when salaries and security of tenure of office are provided that will justify these men choosing public health as a career."

COMMON PROBLEMS DISCUSSED

At the initial session Thursday afternoon—presided over by Dr. A. W. Thomas, chief of

the Bureau of Child Hygiene and Maternal Health—a list of 34 questions regarding communicable disease control, health education, prenatal care programs, and industrial hygiene was presented for discussion from the floor. The presiding officer permitted only a limited amount of time for discussion of each question, upon the expiration of which time the next topic was taken up. As was pointed out by a number of the participants, the beauty of this type of program lay in the opportunity it provided for each health officer to air his own difficulties and to see what steps were taken in other districts to overcome them.

Among the general opinions voiced at this session were the following: that there is a great need for expansion of prenatal programs, particularly in the field of educating expectant mothers; that serological testing of pregnant women and newborn children should be continued and encouraged as part of the venereal disease control program; that the present "horse and buggy" vital statistics law should be revised to achieve better, quicker, and more informative reporting of births and deaths; that health officers and the private practitioners of medicine should continue to cooperate in such projects as pre-school round-ups, immunization campaigns, etc.; that greater efforts should be made to prevent exposing children to tuberculous adults; and that public education as a means of improving industrial hygiene should be enlarged.

Among the comments on prenatal educational programs came the suggestion from Dr. Otto K. Engelke, of Adams County, that they should be extended to senior high school classes "where motherhood begins" in rural districts.

Dr. Markwith raised the question of the effectiveness and efficiency of the present system of distributing silver nitrate for prevention of ophthalmia neonatorum and asked the assembled delegates if they favored sending it directly to the family physician upon receipt of a printed post card requesting it. Opposition to this suggested change was almost unanimous. Those who voiced their objections felt the present method could not be improved.

ROLE OF PRIVATE PHYSICIANS IN IMMUNIZATION

During the discussion of immunization programs Dr. F. R. Dew, of Lorain County, advocated to the conferees that responsibility for this type of preventive medicine for children may be left to the private physicians successfully. He reported that in his district the problem of promoting immunizing measures for very young

children was met by sending cards to the physicians signing birth certificates as well as to the parents at a certain time after birth. This follow-up system serves effectively as a means of reminding both parents and physicians of the urgency of immunization measures, he declared.

NEED FOR HEALTH EDUCATION OF WORKERS

Dr. Kenneth D. Smith, chief of the Bureau of Occupational Diseases, pointed out, during the discussion of questions on that topic, that 15 times more time is lost through ill health in industry than through accidents, and that an increasing need is felt for health education of the workers in all occupations. Dr. Carl A. Wilzbach, health commissioner for Cincinnati, observed that employers are apparently aware of the economic wisdom of health education and preventive measures for employees, and that in many instances they are insisting on thorough periodic health examinations of their workers, the expense of which is frequently borne by the industry as a capital investment.

Questions during the Friday morning session of the conference were of broader scope, and more time was allotted to the discussion of each. Here the delegates brought forth their objections to the present system of determining expenses for members of boards of health, and there followed a thorough investigation of the general problem of obtaining actively interested board members. It was conceded in many quarters that state laws governing this should be revised. Dr. Markwith urged that the health officers lay early plans at the conference for any legislative changes they felt should be made at the next session of the General Assembly.

The Friday morning session saw also an exhaustive discussion of the problems of rabies control and case-finding in syphilis. Stronger measures and the use of police powers to arrive at solutions to both problems were suggested.

PNEUMONIA CONTROL PROGRAM

The need for a pneumonia control program in Ohio was stressed by some of the men present. The feasibility of providing type-specific serum for indigent and low-income patients, to be distributed through the accredited typing stations in Ohio, was discussed, but no conclusion was reached because the uncertain future of chemotherapy confused the picture. Several of the physicians reported they had taken steps toward meeting the urgent need for early diagnosis by using portable X-ray equipment in rural areas. It was also disclosed that in several Ohio cities philanthropic funds have been set up to purchase serum and sulfapyridine for persons not able to buy them. Dr. Wilzbach advised that clinics in Cincinnati, as a preventive measure, are using sulfapyridine in cases of general colds. Dr. Valloyd Adair, of Lorain, declared

that anti-pneumococcic serum is as important a medicament in public health work as diphtheria antitoxin and that health officers should have the legal authority to provide it when circumstances warrant.

The afternoon session Friday was devoted to problems of sanitation, with the questions falling into three general classifications: municipal, environmental, and milk sanitation. Among the topics discussed were: municipal water works and sewerage systems in small communities; collection of water samples for bacterial check-ups; sanitary surveys; school sanitation safeguards; required periodical health examinations for milk handlers; infectious disease control in the dairy industry; herd testing; requirements governing acceptance of milk from outside the jurisdictional area; and related problems.

REPORT OF CONFERENCE TO BE AVAILABLE

Stenotype operators took a verbatim report of the three conference sessions, and mimeographed copies of the report will shortly be sent to all health officers in the state. Conferees were given a catalogue of exhibit posters in the possession of the State Department which are available on loan to local districts. Many of the posters were on display throughout the meeting in the anteroom to the conference chambers. In an adjacent room staff members from the State Department distributed pamphlets prepared by the various bureaus and divisions on several phases of public health activities.

Hotel Reservations for A.M.A. Session in New York Should Be Made Now

Physicians who are planning to attend the annual session of the American Medical Association in New York, June 10-14, should make hotel reservations now in order to secure the type of accommodations desired. Dr. Peter Irving, Room 1036, 233 Broadway, New York, is chairman of the Subcommittee on Hotels of the Local Committee on Arrangements. Applicants for reservations should designate a second and third choice in order that good accommodations can be assured if the desired reservation cannot be obtained at the hotel of first preference. A list of New York hotels and rates was published on page 32 of the advertising section of the December 16 issue of *The Journal of the American Medical Association*. Requests for reservations should be addressed directly to Dr. Irving.

Birth Ratios in Ohio

According to the State Department of Health, the following birth ratios prevail in Ohio: One set of twins to every 95 births; one set of triplets to every 11,129 births; one Negro birth to every 18 white births; one to every foreign-born mother to every 14 native mothers; 105 male births to every 100 female births.

Mid-Winter Examinations of State Medical Board, Dec. 4-7, Taken by 132 Applicants; Questions Asked

FIFTY-EIGHT medical school graduates were examined for licenses to practice medicine and surgery in Ohio, at the mid-Winter meeting of the State Medical Board, December 4-7, at Columbus. Among those examined were 33 graduates of foreign medical schools, five of whom are American citizens. Included among the 28 foreign physicians were 11 who failed in the June examinations.

There were six applicants for licenses to practice osteopathy and surgery. Examinations for certificates of limited practice were taken by seven chiropractors, 23 mechano-therapists, one naprapath, one cosmetic therapist, four chiropodists and 32 masseurs.

Results of the examinations will be announced at a meeting of the State Medical Board to be held in Columbus, January 9.

Following are the questions asked those who sought licenses to practice medicine and surgery:

ANATOMY

1. Describe the inguinal canal.
If the inferior vena cava were partially occluded 5 cm. below the diaphragm, what vessels would enlarge in order to return blood to the heart from the abdominal wall and lower limbs?
3. Give the origin, course and distribution of the ulnar nerve.
4. Describe the palmar tendon sheaths.
5. Give the relations of the pancreas.

PHYSIOLOGY

1. Specify one tendon reflex and give its significance in diagnosis.
2. Give definition and reason of (1) fainting, (2) edema, (3) dyspnoea, (4) cyanosis, (5) coma.
3. What is the function of the autonomic nervous system.
4. Name five factors that alter blood pressure.
5. What are enzymes? Name and discuss briefly one enzyme.
6. What are the factors controlling optic accommodation?
7. Give the function of (1) the turbinate bones, (2) the gall bladder, (3) the vena cava, (4) the foramen ovale, (5) the tympanum.
8. Describe a simple reflex arc.
9. Describe a normal electrocardiogram.
10. How does the chemical reaction of the blood affect respiration?

DIAGNOSIS

1. Give symptoms and signs of active tuberculosis of upper right lobe of lung.
2. Give causes of red blood in stool; how would you differentiate?
3. Give signs and symptoms of adenoma.
4. Give physical finding in lung abscess and pleural empyema.
5. Name conditions in which qualitative food produces symptoms.
6. Give signs of tabes dorsalis, paresis and hysteria.
7. What physical condition is indicated by intermittent claudication erythromelalgia and wrist drop?
8. Differentiate sacro-iliac, sciatic nerve and spermatic cord pain.
9. Give signs of acute hemorrhagic pancreatitis.
10. Give findings in acute glomerular nephritis and acute tubular nephrosis.

CHEMISTRY

1. How would you make dextrose tolerance test? Give interpretation.
2. (a) What is active principal of saliva?
(b) How does it act on starch?
3. In what three ways has reduction of fat in the body to

carbohydrates been shown and what ill results may occur from imperfect reduction?

4. Explain the term calorie.
What caloric requirement should be considered in selection of diet in (a) healthy adult male, (b) nephritic.
5. What are the common types of mineral sediments in normal urines? How may each be identified?

MATERIA MEDICA

(Regular)

1. Give clinical use of sulfapyridine with proper dose and various toxic effects.
2. Give the principal alkaloids of opium, with dose and indication for use.
3. Arsenic—give official preparation, use and dose.
4. Name the official preparations of belladonna and digitalis, with dose.
5. Give the physiological action, use and dose of sodium salicylate.
6. Name three bromides; give dose of each and indication for use.
7. Aminophylline—give dose, how best administered and what precaution should be observed?
8. Bismuth—give the official preparations, use and dose.
9. Acetyl-salicylic acid—give action, dose and symptoms of overdose.
10. What drugs are used to relieve bronchial spasm? Give dose.

MATERIA MEDICA

(Homeopathic)

1. Define: a—materia medica;
b—aggravation;
c—nosode;
d—polycrest;
e—attenuation.
2. Compare the mental symptoms of aconite napellas and gelsemium sempervirens.
3. Give resume of the symptomatology of eupatorium perfoliatum.
4. Name and give five characteristic symptoms of each of five remedies that may be indicated in pneumonia.
5. Differentiate the characteristic stool of arsenicum album and sulphur in diarrhea.
6. Give the characteristic symptoms of apis mellifica.
7. Give the outstanding symptoms of
a—cactus grandiflorus;
b—cinchona officinalis;
c—kali bichromicum;
d—phytolacca decandra;
e—zincum metallicum.
8. Differentiate the mercury preparation of diphtheria.
9. Give five remedies and your reason for using each to be used early in the 'common cold'.
10. What remedy would you prescribe:
Young lady attending first semester of college after graduation from high school; reports that she "has missed one menstrual period" (pregnancy definitely excluded); depressed; irritable; has "terrible headaches"; excessive hunger; cough in the mornings; has lost weight; is very easily fatigued.

BACTERIOLOGY, PATHOLOGY AND PUBLIC HEALTH

1. List three specific organisms causing meningitis in man, and give laboratory methods of recognizing each.
2. Give laboratory procedures for diagnosis of clinical dysentery.
3. Give laboratory method of diagnosing syphilis in (a) primary stage, (b) secondary stage, (c) third stage involving the nervous system.
4. List the biological products used for (a) prevention of diphtheria, (b) treatment of diphtheria, (c) prevention of typhoid fever, (d) prevention of rabies, (e) susceptibility to scarlet fever, (f) susceptibility to tuberculosis.
5. Describe the glomerular changes in
(a) acute glomerular nephritis
(b) chronic glomerulonephritis
(c) amyloid kidney
6. Classify endocarditis pathologically and describe briefly the microscopic findings in each.
7. What are the characteristic histologic tissue changes in syphilis?
8. Define a "malignant tumor" and discuss their method of spreading.
9. What climatic and altitude consideration would you think of in advising a patient suffering from, and why:
(a) arthritis

- (b) cardio-vascular renal disease
 - (c) hay fever with asthma
10. Give the seasonal variations in frequency of pneumonia, diphtheria, epidemic poliomyelitis and acute rheumatic arthritis?
Discuss reasons for such variations.

SURGERY

1. Given a case of severe head injury, what complications may ensue early and late?
2. Differentiate an anterior dislocation of the hip from a fracture of the neck of the femur. Give treatment of each.
3. Give treatment of varicose veins of the leg.
4. Give treatment of otitis media.
5. Discuss management of a young adult struck by automobile and sustaining a dislocated left hip and a compound comminuted fracture of both bones upper third left lower leg. What early and late complications may arise?
6. How would you manage a case of infected ingrowing toe nail?
7. Give treatment of deep palmar abscess.
8. Discuss the cause and treatment of non-union of fractures.
9. Discuss the symptoms and pre-operative management of acute intestinal obstruction.
10. Give management of recurrent dislocation of the shoulder.

OBSTETRICS

1. Give etiology and treatment of vomiting in pregnancy.
2. Discuss toxemia in pregnancy. Give cause and treatment.
3. What is a cystic mole? Give cause for its formation and proper treatment.
4. Diagnose posterior vertex presentation and give management.
5. What are the symptoms and causes of ectopic gestation?

SPECIALTIES

1. Outline your management of a case of iritis.
2. Differentiate tinea sycosis and impetigo contagiosa.
3. Give treatment for trench mouth.
4. How would you diagnose labyrinthitis. Give treatment.
5. Chart your treatment of a case of latent syphilis.

PRACTICE

1. Give the etiology and symptoms of sub-acute bacterial endocarditis. Discuss the prognosis and treatment.
2. Give the life cycle of the trichinella spiralis; how does it find entrance, and list symptoms in human individuals. How make positive diagnosis?
3. What is infectious mononucleosis? Give pathology, symptoms and blood picture.
4. A suspected diabetic becomes comatose; give laboratory findings establishing the diabetes, and how would you treat the patient?
5. Discuss the indications for and methods of administering parenteral fluids in infants.
6. An artificially fed 8 months old infant suddenly develops a diarrhea of 8 to 12 stools per day, without vomiting. Give probable cause and treatment.
7. Discuss the ordinary sources of vitamins A, B, C and D and their application in infant feeding.
8. Give the symptoms of cerebral hemorrhage and discuss the prognosis (a) during the apoplectic stage, (b) during the stage of hemiplegia.
9. Give the early symptoms suggesting paresis, and how would you establish the diagnosis?
10. Discuss migraine; etiology, symptoms and treatment.

Exhibit Entries Being Received

Application blanks are now available for the Scientific Exhibit of the New York session of the American Medical Association, June 10-14. Inquiries should be addressed to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn St., Chicago, Ill., or to the representatives of the various sections of the Scientific Assembly. A list of these representatives appears on page 2157 of the December 9 issue of *The Journal of the A.M.A.* Dr. Paul A. Davis, Akron, is representative of the Section of Preventive and Industrial Medicine and Public Health.

Five Ohio Radio Stations Broadcasting "Medicine in the News"

Radio listeners in virtually every part of Ohio now have an opportunity to hear "Medicine in the News", the weekly educational program of the American Medical Association. Broadcast every Thursday afternoon over the NBC blue network, the feature is carried by the following stations in Ohio: WCOL in Columbus; WHK in Cleveland; WSAI in Cincinnati; WING in Dayton, and WSPD in Toledo.

In all cities except Cleveland "Medicine in the News" is presented for 25 minutes at 4:30 p.m. each Thursday. Because of a commercial commitment, however, WHK carries the program later. According to R. W. Richmond, program director of the Cleveland station, it is transcribed in the studios and broadcast a half hour later, at 5 o'clock, because it is considered an excellent program.

Evidence of the high regard for the entertainment and educational values of this network medical feature, which is a sustaining program optional with local station executives, is found in the fact that every station to which it is available in Ohio is now using it.

Ohio physicians are urged to do their part in stimulating widespread interest in this program by encouraging their patients to listen to it. It is one of the outstanding efforts toward the kind of public education which medicine feels the need of now. Radio station executives who have been in contact with the State Association's Bureau of Public Education regarding "Medicine in the News" have declared that a genuinely interested and receptive listening audience can best be built through cooperation of the practicing physician who suggests to his patients that they tune in on the program for their own good.

Assuming that a program must have more than just sound health information to win popularity, the planners of "Medicine in the News" have incorporated in it all the elements that hold public interest: dramatic action, crisp news flashes, good music, questions and answers, and humor. Its script is written by professional continuity writers in collaboration with officials of the A.M.A., and the program is presented by talented radio players. Popular topics such as pneumonia, rabies, medical progress, poliomyelitis, and maternal and child health are chosen for dramatization.

"Medicine in the News" will continue through June 20, 1940. Because of the time of its broadcast it cannot be used by schools in this area, but it is nevertheless of educational value to children as well as parents. A word from the family doctor suggesting it as an after-school feature can do only good.

Buckeye News Notes

Akron—"Pre-Natal Blood Tests and Congenital Syphilis" was the subject of an address made by Dr. M. M. Miller at a meeting of the Akron and Summit County Hygiene Society.

Cincinnati—Services in memory of Dean Alfred Friedlander of the University of Cincinnati College of Medicine, who died May 28, 1939, were held at the University November 19. Speakers included Rev. Alphonse M. Schwitalla, S. J., Dean of St. Louis University School of Medicine.

Cleveland Heights—Dr. Norman P. McGay is the new president of the Kiwanis Club.

Columbus—Dr. Jonathan Forman spoke on "Military Implications of Allergy" at a meeting of the local chapter of the United States Army Reserve Officers.

Conneaut—Dr. John H. Mowry has been appointed city health commissioner.

Dover—Five physicians took part in a panel discussion on health at a meeting of the Kiwanis Club. They were: Dr. E. C. Davis, Dr. D. W. Shumaker, Dr. K. Earl Shaweker, Dr. W. R. Stager and Dr. S. T. Marshall.

Findlay—Dr. Senn F. Whisler, Hancock County health commissioner, suffered the loss of his left hand as the result of the accidental discharge of a shotgun while hunting.

Gallipolis—The Gallipolis Clinic was opened recently. Associates are: Dr. Leo C. Bean, Dr. N. A. Martin and Dr. H. B. Thomas.

Glouster—Dr. J. T. Martin has left here to become a lieutenant in the Medical Corps of the U. S. Army. He is temporarily stationed at Fort Hamilton, N. Y.

Granville—Dr. Geraldine Crocker was hostess to members of the Women's Medical Club of Columbus. Guests of honor were women medical students at Ohio State University College of Medicine. Dr. Mabel E. Gardner, Middletown, gave an illustrated lecture on "Women in Medicine". Dr. Emilie C. Gorrell, Columbus, is president of the club.

Lima—New staff officers of Memorial Hospital are: Dr. J. R. Tillotson, president; Dr. H. L. Stelzer, vice-president; Dr. H. C. Weisenbarger, secretary; Dr. R. C. Yingling, Dr. P. J. Stueber and Dr. H. A. Thomas, executive committee.

Marietta—Staff officers of Memorial Hospital for 1940 are: Dr. C. A. S. Williams, chairman; Dr. R. M. Meredith, vice chairman, and Dr. J. B. Penrose, secretary; Dr. W. W. Sauer, Dr. F. E. Eddy, Dr. N. M. LaBarre, Dr. D. H. Northrup and Dr. R. H. Sloan, executive committee.

Marion—Dr. Frederick W. Rea spoke on "Contagious Diseases" at a meeting of the Marion Circle, Child Conservation League.

Marysville—Dr. Pearl D. Longbrake has been appointed to the local Board of Education.

Massillon—Dr. M. E. Scott spoke on "Children's Diseases" at a meeting of the Orrville Exchange Club.

Navarre—Dr. G. D. Underwood showed movies of his trip to the Pacific Coast last summer at a meeting of the Canton Physician's and Surgeon's Office Assistants.

Springfield—New staff officers of City Hospital are: Dr. A. Richard Kent, president; Dr. W. D. Beasley, vice president; Dr. W. P. Ultes, secretary, and Dr. F. P. Anzinger, Sr., treasurer.

Steubenville—Dr. F. B. Harrington spoke on "Hospitalization Insurance" at a meeting of the Junior Women's Club.

Tiffin—Officers of Mercy Hospital staff are: Dr. E. H. Porter, president; Dr. Paul J. Leahy, vice-president, and Dr. R. F. Machamer, secretary. Heads of departments are: surgery, Dr. Leahy; medicine, Dr. R. R. Hendershott; obstetrics, Dr. R. C. Chamberlain; eye, ear, nose and throat, Dr. Porter; roentgenology, Dr. V. L. Magers; anesthesia, Dr. J. A. Gosling; records and credentials, Dr. R. E. Hershberger.

Troy—"The Public's Medical Education", was the subject of an address made by Dr. Berton M. Hogle, at a recent meeting of the Tippecanoe City Rotary Club.

Van Wert—Dr. R. E. Shell addressed a meeting of the Home Hygiene and Care of the Sick Class sponsored by the local chapter of the American Red Cross.

Wilmington—Dr. Geneva Shong Rothmund, Yellow Springs, formerly pediatrician in the Bureau of Child Hygiene, State Department of Health, has been appointed acting health commissioner of Clinton County, succeeding Dr. W. K. Ruble, who retired October 31, after 17 years in that post.

Youngstown—Dr. John U. Buchanan, local examiner for the Civil Aeronautics Authority, was one of Ohio's delegates to the meeting of the Aero Medical Association's convention at Miami, Florida. Dr. Buchanan is a member of the Association's executive council.

Zanesville—Dr. Beatrice T. Hagen, who has been Muskingum County health commissioner for 11 years, has been reappointed for another year.

In Memoriam

Charles Walter Stone, M.D., Cleveland; Johns Hopkins University School of Medicine, Baltimore, 1905; aged 60; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Physicians; member of the American Psychiatric Association and the Central Neuropsychiatric Association; died December 9.



DR. STONE

Dr. Stone served his internship and residency under the late Dr. Charles F. Hoover at Lakeside Hospital, Cleveland, and after a year's study in Europe, began practice in Cleveland in 1909, specializing in psychiatry. At the time of his death he was associate clinical professor of nervous diseases at Western Reserve University School of Medicine, and a member of the staffs of Lakeside, City and St. Alexis' Hospitals.

During his 30 years' practice in Cleveland, Dr. Stone was ever active in behalf of the medical profession. From 1922 to 1926, he was Councilor for the Fifth District of the Ohio State Medical Association, and in 1926 was elected President of the Academy of Medicine of Cleveland. Dr. Stone was President of the Ohio State Medical Association in 1928. Since 1932 he had been a delegate to the American Medical Association. Dr. Stone was also a member of the Committee on Public Relations and Economics of the Ohio State Medical Association and was recently appointed a member of the Committee on Distinguished Awards of the A.M.A.

Even before the United States entered the World War, Dr. Stone volunteered for service and served overseas with the hospital unit organized by Dr. George W. Crile. He was honorably discharged with the rank of lieutenant-colonel. Surviving are his widow and a daughter.



Thomas J. Arundel, M.D., Youngstown; Albany Medical College, 1897; aged 70; member of the Ohio State Medical Association and the American Medical Association; died December 7. Dr. Arundel practiced in Youngstown for 42 years. During the World War he served with the Knights of Columbus in France and Italy, and received the papal award "pro ecclesia et pontifice" from Pope Benedict XV for his service.

Daniel Edward Bottorf, M.D., Ashtabula; Cleveland University of Medicine and Surgery, Homeopathic, 1881; aged 84; died November 26. Dr. Bottorf studied medicine after several years as a teacher in Pennsylvania. He practiced in Clearfield, Pa., for two years, and in 1883 opened an office in Ashtabula. Dr. Bottorf had practiced there since that time, with the exception of five years in Mansfield. He was a member of the Methodist Church. Surviving are his widow, two daughters, two sons and a brother.

Ferdinand Aloysius Grafe, M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1900; aged 76; died December 5. A native of Germany, Dr. Grafe practiced in Cincinnati for 37 years. His widow, a daughter and a son survive.

Boyce T. Hatfield, M.D., Dayton; University of Cincinnati College of Medicine, 1939; aged 23; died November 23. Dr. Hatfield was drowned while swimming in the Pacific Ocean at San

Francisco, where he was an intern at the United States Marine Hospital. His parents, a sister and two brothers survive.

John Frederick Hill, M.D., West Milton; Toledo Medical College, 1911; aged 54; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 4. Dr. Hill practiced in Toledo, Attica and McConnellsville prior to the World War, during which he was a lieutenant in the Medical Corps of the United States Army. His service included assignments at Ft. Oglethorpe, Ga.; Camp Grant, Ill.; and in France with the A.E.F. Following the war, Dr. Hill practiced in Marietta and Columbus Grove, before locating in West Milton 14 years ago. From 1927 to 1932 he practiced in Piqua, where he also served as city health commissioner. Dr. Hill was a past president of the Miami County Medical Society and a former commander of the Miami County American Legion post. He was a member of the Episcopal Church and the Masonic Order. Surviving are his widow, a daughter, a son and a brother—Dr. Lewis Hill, Baltimore, Md.

George S. Iddings, M.D., Cleveland; Cleveland Medical College, Homeopathic, 1897; aged 88; died December 10. Dr. Iddings retired in 1924 after many years of practice in Cleveland. A pioneer in the field of X-ray, he was an honorary member of the American Roentgen Ray Society.

He was a member of the Masonic Order. His widow and a daughter survive.

George Leslie Lyne, M.D., Medina; Dartmouth Medical College, Hanover, N. H., 1896; aged 71; former member of the Ohio State Medical Association and the American Medical Association; died November 9. Dr. Lyne first practiced in Stockport and Lowell, Morgan County, and for 10 years in New Paris, Preble County. In 1916 he located in Wapakoneta and from 1920 to 1923 was health commissioner of Auglaize County. For three years he was health commissioner of Geauga County and in 1926 opened an office in Medina. Dr. Lyne retired several years ago because of ill health. Surviving are his widow and a daughter.

Theodore Miller, M.D., Cleveland; Harvard University Medical School, Boston, 1908; aged 55; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons, and member of the Central Association of Obstetricians and Gynecologists; died in November. Dr. Miller practiced in Cleveland for 29 years. He had been chief of the department of obstetrics and gynecology of Mt. Sinai Hospital and more recently of a similar department at St. Luke's Hospital. An active member of the Cleveland Academy of Medicine, Dr. Miller was a member of its Board of Trustees, Board of Censors and the Committee on Health Education. He was also a member of the Board of Trustees of the Cleveland Medical Library Association and a charter member of the Pasteur Club. His widow and a daughter survive.

Russell H. McClure, M.D., Elyria; Western Reserve University School of Medicine, 1904; aged 59; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 1. Dr. McClure, who practiced in Elyria for 32 years, came of a family of physicians. His father was the late Dr. W. P. McClure, among Elyria's earliest physicians, and two of his father's brothers were physicians. Dr. McClure was a charter member of the Elyria Memorial Hospital Staff, and a member of the Congregational Church. Surviving are his widow, a daughter, a son, his mother, two sisters and one brother.

Samuel Huston Miller, M.D., Columbus; Temple University School of Medicine, Philadelphia, 1918; aged 51; died December 9. During the World War Dr. Miller served overseas in the Medical Corps of the United States Army. For the past several years he had practiced in Columbus. His widow, two daughters, a son, five sisters and a brother survive.

Charles A. Poindexter, M.D., Middleport; Ohio Medical University, 1895; aged 69; member of

the Ohio State Medical Association and the American Medical Association; died December 11. Dr. Poindexter practiced in Middleport for 42 years. He was a past president of the Meigs County Medical Society. Dr. Poindexter was a member of the Masonic Order. Surviving are his widow, a sister and a brother.

Henry Rudolph Roether, M.D., Perrysburg; University of Michigan Medical School, 1893; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died November 13. Dr. Roether retired three years ago because of ill health, after having practiced in Perrysburg for over 40 years. Active in civic affairs, he was mayor of Perrysburg for four years, and had been a member of both the library and school boards. His widow, a son, a sister and a brother survive.

W. Edwards Schenck, M.D., Cincinnati; Miami Medical College, Cincinnati, 1891; aged 78; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died November 26. Retired for several years, Dr. Schenck had been a member of the ophthalmic staff of the Miami Medical College. During the World War he served in the Medical Corps of the United States Army. Dr. Schenck was a Mason. His widow survives.

Willard Cyrus Stoner, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1906; aged 62; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Physicians; diplomate of the American Board of Internal Medicine; died November 16. Dr. Stoner retired last Spring after having been director of medicine at St. Luke's Hospital, Cleveland, for 18 years. He was an active member of the Cleveland Academy of Medicine, having been chairman of the Experimental Medicine Section in 1912, and chairman of the Program Committee in 1913. A colonel in the Medical Reserve Corps of the United States Army, Dr. Stoner served in the World War as medical chief of Base Hospital No. 52 at Rimacourt, France, and later as commanding officer and chief of medical service at Evacuation Hospital No. 3, Army of Occupation, Trier, Germany. Dr. Stoner was a Mason. Surviving are his widow, two daughters, a son—Willard C. Stoner, Jr., a student at Ohio State University College of Medicine, a sister and two brothers.

William Colegrove Tuckerman, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1905; aged 61; member of the Ohio State Medical Association, the American Medical Association and the American Academy of Ophthalmology and Oto-Laryngology and Fellow

of the American College of Surgeons; died December 5. One of three sons of the late Dr. Louis B. Tuckerman who became physicians, Dr. Tuckerman interned at St. Alexis' Hospital, Cleveland, and began practice in Hiltz and Kennet, Calif. During 1909 and 1910 he took special courses in ophthalmology at the University of Vienna, following which he opened an office in Cleveland for the practice of that specialty, a practice which terminated last June when he was seriously injured in an automobile accident in California. Surviving are his mother, a sister and three brothers, of whom two are physicians, Dr. J. E. Tuckerman and Dr. W. H. Tuckerman, Cleveland.

Milo Wilson, M.D., Gallipolis; Ohio Medical University, Columbus, 1896; aged 69; member of the Ohio State Medical Association, the American Medical Association and the Radiological Society of North America; died November 9. Dr. Wilson practiced at Gilboa, Putnam County, for three years, and then became a member of the medical staff of the Athens State Hospital. For several years he was superintendent of that institution. For the past 20 years he had been radiologist at Holzer Hospital, Gallipolis. Dr. Wilson was secretary-treasurer of the Gallia County Medical Society for 18 years. He was a member of the Methodist Church and a life member of the Ohio State Historical and Archaeological Society. His widow and a brother survive.

Fillmore Young, M.D., Marion; Starling Medical College, Columbus, 1892; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 20. Dr. Young began practice at McConnelville and after several years there went to New York for postgraduate study. He had practiced in Marion since 1904. Dr. Young was a member of the Masonic Order. Surviving are his widow, three daughters and a sister.

Bigelow Proposals Defeated in Every County, Official Count Shows

Official tabulations of the votes cast November 7 on the so-called Bigelow amendments disclose that these proposals were defeated decisively in every county in the state. In some rural counties the vote ran as high as 9 to 1 against the amendments. The total state vote on proposal No. 1, which would have granted \$50 a month to single persons or \$80 a month to married couples at age 60, was 464,670, "Yes", and 1,546,207, "No", a majority of 1,081,537 votes against the proposal. Proposal No. 2, which would have reduced the number of signatures required to initiate a law to 50,000 and the number to initiate a constitutional amendment to 100,000, was defeated by 1,079,307 votes, the result being 406,612, "Yes",

and 1,485,919, "No". The vote on the two proposals in the 88 counties of the state follows:

Counties	No. 1 Old Age Pensions		No. 2 Relative to Initiative Petitions	
	YES	NO	YES	NO
Adams	2,118	5,700	1,674	5,501
Allen	5,665	18,036	4,620	17,898
Ashland	1,197	8,835	1,136	8,568
Ashtabula	3,580	16,560	3,263	15,722
Athens	6,771	8,885	5,249	8,897
Auglaize	1,843	8,134	1,575	7,963
Belmont	12,849	17,267	10,990	16,409
Brown	1,735	6,359	1,386	5,954
Butler	9,574	24,136	8,089	23,485
Carroll	1,045	4,608	824	4,439
Champaign	1,992	7,165	1,660	6,820
Clark	7,784	19,620	6,268	19,205
Clermont	2,900	8,611	2,505	8,171
Clinton	1,839	6,843	1,537	6,524
Columbiana	6,060	19,996	4,918	18,978
Coshocton	2,415	8,982	1,935	8,791
Crawford	2,179	10,769	1,894	10,319
Cuyahoga	73,157	236,761	66,707	229,732
Darke	2,937	12,114	2,403	11,153
Defiance	1,601	6,506	1,291	6,272
Delaware	1,910	7,689	1,728	7,598
Erie	3,728	8,826	3,244	8,114
Fairfield	2,129	11,196	1,889	10,724
Payette	1,196	5,220	1,041	4,801
Franklin	21,326	80,551	21,594	75,650
Fulton	683	5,526	610	5,230
Gallia	2,647	4,935	2,063	4,762
Geauga	630	4,259	674	3,955
Greene	2,294	8,827	2,074	8,306
Guernsey	3,946	8,673	3,162	8,570
Hamilton	43,035	152,189	40,445	148,266
Hancock	2,845	11,693	2,553	11,340
Hardin	2,385	9,035	2,019	8,855
Harrison	1,198	5,388	966	5,259
Henry	1,082	5,533	845	5,169
Highland	2,175	7,756	1,795	7,461
Hocking	2,206	4,494	1,734	4,324
Holmes	683	4,548	544	4,350
Huron	2,275	9,698	1,978	9,317
Jackson	3,537	5,560	2,771	5,339
Jefferson	9,291	18,677	7,860	11,414
Knox	2,079	8,878	1,726	8,598
Lake	2,580	11,516	2,396	10,988
Lawrence	4,680	7,197	3,650	6,954
Licking	4,194	16,630	3,525	16,220
Logan	2,124	8,512	1,714	8,893
Lorain	4,921	25,281	4,709	24,138
Lucas	20,957	72,542	18,326	70,592
Madison	1,169	5,771	974	5,394
Mahoning	12,276	60,029	11,885	57,794
Marion	3,300	10,632	2,710	10,490
Medina	1,338	7,735	1,264	7,241
Meigs	3,127	5,126	2,383	4,985
Mercer	1,848	7,674	1,511	7,537
Miami	3,163	12,594	2,646	12,450
Monroe	1,219	5,205	973	4,929
Montgomery	18,178	53,226	15,565	52,760
Morgan	902	4,448	799	4,241
Morrow	956	4,394	774	4,317
Muskingum	5,335	17,312	4,297	17,261
Noble	1,517	4,604	1,208	4,482
Ottawa	1,139	5,769	1,059	5,327
Paulding	1,393	4,301	1,019	4,240
Perry	3,796	6,540	2,864	6,519
Pickaway	1,331	7,006	1,115	6,662
Pike	1,322	3,917	1,057	3,810
Portage	2,306	12,461	2,048	11,823
Preble	1,492	5,584	1,116	5,305
Putnam	1,408	7,559	1,066	7,388
Richland	4,330	17,339	3,728	16,678
Ross	3,437	12,846	2,766	12,159
Sandusky	2,149	11,008	1,921	10,118
Scioto	10,247	15,854	8,186	15,368
Seneca	2,572	13,354	2,280	12,855
Shelby	1,766	7,016	1,375	6,860
Stark	14,299	49,560	12,576	48,016
Summit	26,358	62,254	23,694	60,609
Trumbull	7,650	25,842	6,468	23,814
Tuscarawas	4,535	15,028	3,788	14,622
Union	1,443	6,207	1,150	5,959
Van Wert	1,401	9,182	1,221	8,961
Vinton	1,386	2,509	995	2,456
Warren	2,095	7,669	1,746	7,166
Washington	3,573	11,523	2,947	10,995
Wayne	1,671	14,719	1,556	14,204
Williams	1,385	7,119	1,223	6,783
Wood	2,949	12,791	2,297	12,258
Wyandot	932	5,784	803	5,524
Totals	464,670	1,546,207	406,612	1,485,919

Midwestern Forum on Allergy to Be Held in Chicago, January 13-14

All interested physicians are cordially invited to attend the second annual conference of the Midwestern Forum on Allergy to be held at the Palmer House, Chicago, Saturday and Sunday, January 13-14. The program will begin at 7 o'clock Saturday evening with the annual get-together, after which there will be informal discussions and demonstrations on the following subjects:

1. "Kodachrome Demonstration of Allergic Skin Lesions." Leader: Dr. Sam Levine, Detroit, Mich.
2. "Smut Allergy" (Microscope Demonstration). Leader: Dr. F. W. Wittich, Minneapolis, Minn.
3. "Drug Allergy." Leader: Dr. Theodore L. Squier, Milwaukee, Wis.
4. "Effects of Allergy on Constitution." Leader: Dr. Milton B. Cohen, Cleveland.
5. "Nasal Secretion of Allergic and Non-Allergic Types" (Microscope Demonstration). Leader: Dr. French Hansel, St. Louis, Mo.

Sunday, 9 A.M., Crystal Room

Chairman: Dr. John Sheldon, Ann Arbor, Mich.

1. "Results of Atmospheric Research During 1938-1939," Dr. O. C. Durham, North Chicago, Ill.
2. "Mold Allergy," Dr. Theron G. Randolph, Milwaukee, Wis.
3. "The Nature of Various Mill Dust Allergens," Dr. F. W. Wittich, Minneapolis, Minn.
4. "Allergic Purpura," Drs. J. Warrick Thomas and J. R. Forsythe, Cleveland. Discussion opened by Dr. Squier.
5. (Subject to be announced.) Dr. Clarence Bernstein, University of Chicago, Chicago, Ill.

Sunday Noon: Luncheon Room 14.

Sunday, 2 P. M., Crystal Room

Chairman: Dr. Jonathan Forman, Columbus

1. "Arthus Phenomenon in Relation to Allergy" (Lantern Demonstration). Dr. Paul Cannon, professor of pathology, University of Chicago, Chicago, Ill. Discussion opened by Dr. Cohen.
2. "Physiological Studies on Histamine in Relationship to Allergy" (Colored Movie). Dr. Richard Young, Northwestern University, Chicago, Ill.
3. "Comparative Studies on Histamine and Passive Transfer Reactions in Neurological Patients," Dr. Michael Zeller, University of Illinois, Chicago, Ill.

Columbus—Dr. J. H. J. Upham, Dean of the Ohio State University College of Medicine, has been appointed Franklin County Chairman of the National Foundation for Infantile Paralysis.

Dr. Dunham Resigns as Medical Head of Hamilton County Sanatorium

Dr. John H. Skavlem, Cincinnati, has been named acting director of medical service of the Hamilton County Tuberculosis Sanatorium for 1940, succeeding Dr. H. Kennon Dunham, who resigned after 30 years of service. Dr. Dunham also resigned as associate professor of medicine and director of the sub-department of tuberculosis in the department of internal medicine, University of Cincinnati College of Medicine. In accepting his resignation, the Board expressed its deep appreciation of Dr. Dunham's services.

The following directors of service at Cincinnati General Hospital were reappointed for 1940:

Medical, Dr. M. A. Blankenhorn; surgical, Dr. Mont R. Reid; gynecologic division, Dr. Frank M. Coppock; urologic division, Dr. Gordon F. McKim; orthopedic surgery division, Dr. Joseph A. Freiberg; pediatric, Dr. A. Graeme Mitchell; obstetric, Dr. Henry L. Woodward; psychiatric, Dr. Emerson A. North; oto-laryngologic, Dr. Samuel Iglauer; ophthalmologic, Dr. Derrick T. Vail; dermatologic, Dr. Elmore B. Tauber; radiologic, Dr. Sidney Lange; pathologic, Dr. R. S. Austin; bacteriologic, Dr. Lee Foshay; biochemistry, Dr. Albert P. Mathews; dental, Dr. Robert M. Schell, and out-patient department, Dr. Julien E. Benjamin.

President Raymond Walters reported a number of gifts, included the following designated for the College of Medicine: \$1,000 from the National Committee for Mental Hygiene for research work at Longview Hospital; \$691.68 from Dr. Mont R. Reid, professor of surgery, to be added to the Mont R. Reid fund; \$600 from an anonymous donor for the Alice Outhouse fund; \$200 from the estate of Eleanor C. U. Alms to the Eleanor C. U. Alms loan fund; \$150 from an anonymous donor to be added to the Kuppenheimer fund in the department of physiology, and \$25 from B. K. Roberts for research in the department of physiology.

Ohioans to Speak at Florida Meeting

Several Ohio physicians are scheduled to address the Fourth Annual Assembly of the United States Chapter of the International College of Surgeons which will be held at Venice, Florida, February 11-14. They are: Dr. William E. Lower, "The Indications for and the Results of Ureteral Transplantation into the Recto-Sigmoid"; Dr. Lewis F. Smead, Toledo, "Management of Acute Hemorrhagic Pancreatitis", and Dr. Carl R. Steinke, Akron, "Treatment of Complications of Penetrating Wounds of the Thorax and Associated Injuries". Dr. Frederick M. Douglass, Toledo, is president of the United States Chapter, and Dr. Andre Crotti, Columbus, is president of the International Chapter of the College.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BROWN

Officers of the Brown County Medical Society re-elected for 1940 are: Dr. R. B. Hannah, Georgetown, president; Dr. Geo. P. Tyler, Jr., Ripley, secretary; Dr. Tyler, Jr., delegate; Dr. Hannah, alternate.—Geo. P. Tyler, M.D., secretary.

BUTLER

Dr. Martin H. Fischer, Cincinnati, spoke on "Arteriosclerosis" at the annual dinner meeting of the Butler County Medical Society and the Keely Dental Society, November 29, at the Elks' Club, Hamilton.—Vera C. Iber, M.D., secretary.

CLERMONT

The Clermont County Medical Society has elected the following officers for 1940: Dr. John A. Carter, Batavia, president; Dr. J. T. Crone, Milford, vice-president; Dr. J. M. Coleman, Loveland, secretary-treasurer; Dr. Thomas Longworth, Felicity, legislative committeeman; Dr. Allan B. Rapp, chairman of the committee on public relations and medical economics; Dr. Carter, delegate; Dr. Coleman, alternate.—J. M. Coleman, M.D., secretary.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during December:

December 5—"Serotherapy and Chemotherapy of Pneumonia", by Dr. Maxwell Finland, associate in medicine, Harvard University Medical School, Boston, Mass.

December 12—Hospital Night. Case Report by members of the staff of Good Samaritan Hospital. "Reconstruction of the Lip in Carcinoma", by Dr. Byron E. Boyer; "Spontaneous Anastomosis with Recovery Following Acute Intestinal Obstruction", by Dr. Eslie Asbury; "Thoracic Teratoma", by Dr. Robert J. Tapke; "Gingivoma or Elephantiasis of the Gingiva", by Dr. Edward L. Ball; "Unusual Meningioma", by Dr. Howard D. McIntyre and Dr. Joseph J. Podesta, with pathology discussed by Dr. William M. German; "Roentgenologic Findings in Intussusception", by Dr. Justin E. McCarthy.

December 19—"The Endocrine Influence of Certain Ovarian Tumors", by Dr. Emil Novak, associate professor of obstetrics, University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md.—Bulletin.

Officers of the Academy for 1940 are: Dr. E. O.

Swartz, president; Dr. Charles E. Kiely, president-elect; Dr. Willard B. Fessenden, secretary; Dr. Clyde S. Roof, treasurer; Dr. Emil R. Swepston, chairman, legislative committee; Dr. Carl A. Wilzbach, chairman, public relations committee; Dr. Edward D. King, chairman, medical economics committee; Dr. Ralph G. Carothers, Dr. Otto J. Seibert, Dr. Howard D. Fabing, Dr. Wm. J. Topmoeller, Dr. Max M. Zinninger, Dr. Swartz and Dr. Swepston, delegates; Dr. Joseph N. Ganim, Dr. Daniel C. Rivers, Dr. Irving H. Schroth, Dr. Lloyd B. Johnston, Dr. Ralph W. Eddy, Dr. Richard D. Bryant, Dr. Daniel E. Earley, Dr. David W. Heusinkveld, alternates.—Raymond A. Swink, executive secretary.

HIGHLAND

Russell Knoop of the Columbus office of the Farm Security Administration explained a plan for the medical care of FSA clients in the county, at a meeting of the Highland County Medical Society, Wednesday, December 6, at the Highland House, Hillsboro. A committee composed of Dr. J. H. Frame, Highland; Dr. R. R. Remark, Sinking Spring, and Dr. J. C. Bohl, Hillsboro, was appointed to study the proposed plan.—News clipping.

WARREN

Members of the Warren County Medical Society and a number of physicians from surrounding counties attended a meeting of the society, Wednesday night, November 22, at Bomberger's Inn, Lebanon, at which Dr. W. McK. Craig, Rochester, Minn., spoke on "The Surgical Treatment of Hypertension".

Officers of the society for 1940 are: Dr. James H. Arnold, Lebanon, president; Dr. Orville L. Layman, Franklin, vice-president; Dr. A. D. Harvey, Lebanon, secretary; Dr. Jean A. Nock, Franklin, legislative committeeman; Dr. Edw. Blair, Lebanon, and Dr. N. A. Hamilton, Franklin, public relations committeemen; Dr. P. W. Tetrick, Mason, medical economics committeeman; Dr. Hamilton, delegate; Dr. A. E. Stout, Waynesville, alternate.—James H. Arnold, M.D., retiring secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Thirty-seven members attended a meeting of the Clark County Medical Society, Thursday, November 30, at the Hotel Shawnee, Springfield. Dr. James M. Ruegsegger, University of Cincinnati College of Medicine, gave a very interest-

ing talk on "Pneumonia, and its Treatment with Sulfapyridine".—G. M. Lane, M.D., secretary.

DARKE

Dr. Harry A. Nieman, Dayton, lectured on "Recognition of Skin Cancer" at a meeting of the Darke County Medical Society, Friday evening, December 15, at the Cul-Mor Tea Room, Greenville.—W. D. Bishop, M.D., secretary.

GREENE

At a meeting of the Greene County Medical Society, Thursday, December 7, at Xenia, Dr. Robert E. Pumphrey, Dayton, discussed "Diagnosis and Treatment of Common Rectal Ailments".

The society elected the following officers for the ensuing year: Dr. C. W. Miller, Osborn, president; Dr. T. F. Myler, Xenia, vice-president; Dr. D. F. Kyle, Cedarville, secretary-treasurer; Dr. P. D. Espey, Xenia, legislative committeeman; Dr. H. C. Messenger, Xenia, public relations committeeman and delegate; Dr. C. G. McPherson, Xenia, alternate.—Donald F. Kyle, M.D., secretary.

MIAMI

The Miami County Medical Society held its annual business meeting at the Stouder Hospital, Troy, Friday afternoon, December 1. Following reports of committees and the retiring officers, the society elected the following officers for 1940: Dr. John T. Quirk, Piqua, president; Dr. Ralph D. Yates, Piqua, vice-president; Dr. G. A. Woodhouse, Pleasant Hill, secretary-treasurer; Dr. I. C. Kiser, Piqua, legislative committeeman; Dr. B. M. Hogle, Troy; Dr. E. G. Puterbaugh, Tippecanoe City, and Dr. Hugh Wellmeier, Piqua, public relations committeemen; Dr. I. C. Kiser, Piqua, medical economics committeeman; Dr. Woodhouse, delegate; Dr. E. G. Puterbaugh, Tippecanoe City, alternate.

An educational, patriotic sound motion picture film entitled, "Let's Save America", was shown. Short talks were made by Dr. H. M. Platter, Columbus, secretary of the State Medical Board, and Dr. J. H. J. Upham, Columbus, dean of the Ohio State University College of Medicine, who was also the principal speaker at a meeting of the Miami County O. S. U. Alumni Association held at Piqua.—G. A. Woodhouse M.D., secretary.

MONTGOMERY

Dr. A. B. Brower spoke on "Problems in Hypotension" at a meeting of the Montgomery County Medical Society Friday evening, December 1, at Dayton.

Officers of the society for 1940 are: Dr. W. A. Ricketts, president; Dr. K. W. Horn, first vice-president; Dr. C. D. Fife, second vice-president; Mildred E. Jeffrey, secretary-treasurer; Dr. H. V. Dutrow, legislative committeeman; Dr. R. S.

Binkley, chairman of the Public Relations committee; Dr. A. W. Carley, Dr. P. L. Yordy, Dr. C. J. Derby and Dr. Dutrow, delegates; Dr. E. M. Smith, Dr. M. R. Haley, Dr. T. K. Kirk, and Dr. R. D. Dooley, alternates.—Mildred E. Jeffrey, executive secretary.

PREBLE

"Treatment of Common Skin Diseases" was the subject discussed by Dr. H. A. Nieman, Dayton, at a meeting of the Preble County Medical Society, Wednesday, November 29 at Eaton.—News clipping.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

ALLEN

Dr. Fred M. Drennan, professor of medicine, Loyola University College of Medicine, Chicago, Ill., spoke on "The Application of the Principles of Acid Control in the Treatment of Complications of Peptic Ulcer", at a meeting of the Academy of Medicine of Lima and Allen County, Wednesday evening, December 13, at Memorial Hospital, Lima.—E. B. Pedlow, M.D., correspondent for *The Journal*.

AUGLAIZE

Dr. H. C. Weisenbarger, Lima, spoke on "Pyuria", and T. M. Mowery of the Aetna Casualty and Surety Company discussed "Professional Liability Insurance" at a meeting of the Auglaize County Medical Society, Thursday evening, December 14, at the Library Room, St. Marys.—Chas. C. Berlin, M.D., secretary.

CRAWFORD

"Neuresthenia and Hysteria as Manifestations of Organic Disease" was the subject of an address made by Dr. Robert C. Kirk, Columbus, at a meeting of the Crawford County Medical Society, Monday evening, December 4, at Galion.—News clipping.

HARDIN

Dr. C. D. Hoy, Columbus, spoke on "The Treatment of Fractures", at a meeting of the Hardin County Medical Society Thursday evening, November 16, at Kenton.—News clipping.

MARION

"Medical Care and the Poor Relief Law" was the subject discussed at a meeting of the Marion Academy of Medicine, Tuesday evening, November 7, at Marion City Hospital. Speakers included Frank S. Burns, county relief director.—News clipping.

At a meeting of the Academy, Tuesday evening, December 5, at the Marion City Hospital, Dr. Donald M. Glover, Cleveland, spoke on "The

Treatment of Burns and Their Sequelae".—News clipping.

SENECA

Dr. E. H. Hedges, Lima, was guest speaker at a meeting of the Seneca County Medical Society, Thursday evening, November 30, at the Shawhan Hotel, Tiffin.

Dr. Wade W. Stone, Toledo, spoke on "Surgical Office Procedures" at a meeting of the society, Thursday evening, December 21, at the Shawhan Hotel, Tiffin.

The society elected the following officers for the ensuing year: Dr. N. E. Williard, Tiffin, president; Dr. G. H. W. Bruggemann, Fostoria, vice-president; Dr. M. H. Aiken, Tiffin, secretary-treasurer; Dr. R. E. Hershberger, Tiffin, legislative committeeman; Dr. R. C. Chamberlain, Dr. R. R. Hendershott and Dr. A. W. Harrold, all of Tiffin, public relations committeemen; Dr. G. W. Williard, Tiffin, medical economics committeeman; Dr. Hendershott, delegate; Dr. P. J. Leahy, Tiffin, alternate.—Edmund F. Ley, M.D., retiring secretary.

VAN WERT

New officers of the Van Wert County Medical Society are: Dr. R. H. Good, Van Wert, president; Dr. J. R. Jarvis, Van Wert, vice-president; Dr. O. E. Cress, Convoy, secretary-treasurer; Dr. C. R. Keyser, Van Wert, legislative committeeman; Dr. S. A. Edwards, Van Wert, public relations committeeman; Dr. Jarvis, delegate; Dr. Cress, alternate.—C. A. Morgan, M.D., retiring secretary.

WYANDOT

Officers of the Wyandot County Medical Society for 1940 are: Dr. C. W. Montgomery, Sycamore, president; Dr. R. L. Garster, Upper Sandusky, vice-president; Dr. F. M. Smith, Sycamore, secretary-treasurer; Dr. R. J. Semons, Carey, legislative committeeman; Dr. J. Craig Bowman, Upper Sandusky, delegate; Dr. F. M. Kenan, Upper Sandusky, alternate.—F. M. Smith, M.D., secretary.

Dr. Frederick W. Rea, Marion, spoke on "Immunization and Specific Treatment of Various Contagious Diseases" at a meeting of the society, Thursday evening, December 7, at Upper Sandusky.—News clipping.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

DEFIANCE

At a meeting of the Defiance County Medical Society, Friday, November 10, at the Mayfair Restaurant, Defiance, Dr. John D. Cameron read a paper on "Tularemia", and gave a brief discussion of "Undulant Fever".

Officers of the society for 1940 are: Dr. Seth

DeMuth, Hicksville, president; Dr. John S. Hull, Hicksville, vice-president; Dr. E. P. Mitchell, Defiance, secretary-treasurer; Dr. Geo. DeMuth, Sherwood, legislative committeeman; Dr. E. C. Wurst, Defiance, public relations committeeman; Dr. D. J. Slosser, Defiance, delegate; Dr. P. B. Newcomb, Defiance, alternate.—E. P. Mitchell, M.D., secretary.

FULTON

At a meeting of the Fulton County Medical Society, December 7, at Wauseon, the following officers were elected for the ensuing year: Dr. C. F. Hartmann, Wauseon, president; Dr. A. M. Wilkins, Delta, vice-president; Dr. George McGuffin, Pettisville, secretary-treasurer; Dr. E. A. Murbach, Archbold, legislative committeeman; Dr. R. W. Reynolds, Fayette, public relations committeeman; Dr. C. L. Hutchins, Delta, medical economics committeeman; Dr. C. F. Murbach, Archbold, delegate; Dr. C. Harold Heffron, Metamora, alternate.—George McGuffin, M.D., secretary.

HENRY

Officers of the Henry County Medical Society for 1940 are: Dr. B. L. Johnson, Deshler, president; Dr. G. M. Wright, Liberty Center, vice-president; Dr. R. B. Kieffer, Napoleon, secretary-treasurer; Dr. J. R. Bolles, Napoleon, legislative committeeman; Dr. C. G. Hissong, Hamler; Dr. Thos. Quinn, Napoleon, and Dr. Bolles, public relations committeemen; Dr. T. P. Delventhal, Napoleon; Dr. C. B. Geiger, Holgate, and Dr. Bolles, medical economics committeemen; Dr. J. J. Harrison, Napoleon, delegate; Dr. Delventhal and Dr. Quinn, alternates.—J. R. Bolles, M.D., retiring secretary.

LUCAS

The following programs were presented by The Toledo Academy of Medicine during November:

November 3—Sixth Annual Postgraduate Day at the University of Toledo Auditorium. Lecturers: Dr. Willard Owen Thompson, associate professor of medicine, Rush Medical College of the University of Chicago; Dr. Harry Edgar Mock, associate professor of surgery, Northwestern University Medical School. (Complete program published in the November issue of *The Ohio State Medical Journal*, page 1237).

November 10—Joint Meeting with the Toledo Dental Society. "Traumatic Arthritis in the Temporomandibular Joint", by F. A. Henny, D.D.S., Henry Ford Hospital, Detroit, Mich.

November 17—Annual Clinic Day. Dr. F. D. Murphy, professor of medicine, Marquette University School of Medicine, Milwaukee. (Complete program in November issue of *The Ohio State Medical Journal*, page 1221).

At a meeting of the Medical Section, December 1, Dr. Howard B. Lewis, professor of biological

chemistry, University of Michigan, spoke on "Recent Development in and Knowledge of Vitamins of Special Significance to the General Practitioner".—Bulletin.

PUTNAM

Dr. John LoCricchio, Lima, gave a most interesting talk on "Laboratory Diagnosis in General Practice", at a meeting of the Putnam County Medical Society, Tuesday, December 5, at the Hotel Putnam, Ottawa.

The following officers were elected for 1940: Dr. W. B. Light, Ottawa, president; Dr. C. W. Bird, Continental, vice-president; Dr. Milo B. Rice, Pandora, secretary-treasurer; Dr. L. M. Piatt, Ottawa; Dr. H. A. Neiswander, Pandora, and Dr. H. H. Sink, Columbus Grove, legislative committeemen; Dr. W. D. Hickey, Leipsic, and Dr. Neiswander, Pandora, medical economics committeemen; Dr. J. R. Echelbarger, Ottawa, delegate; Dr. W. D. Hickey, Leipsic, alternate.—H. N. Trumbull, M.D., correspondent for *The Journal*.

SANDUSKY

"Head Injury and Its Treatment" was the subject of an address made by Dr. Max T. Schnitker, Toledo, at a meeting of the Sandusky County Medical Society, Thursday night, November 30, at the Old Elm Tea Room, Fremont.—News clipping.

WOOD

A program for the medical care of the indigent and a proposed plan for a hospital in Bowling Green were among the subjects discussed at a meeting of the Wood County Medical Society, Thursday evening, December 14, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. A. C. Ernestene, Cleveland, spoke on "Common Errors in Cardiac Diagnosis", at a dinner meeting of the Ashtabula County Medical Society, Tuesday evening, November 14, at Brown Memorial Hospital, Conneaut.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland and Cuyahoga County presented the following programs during December:

December 1—Clinical and Pathological Section. "Giant Calculosis", report of two cases, by Dr. J. B. Morgan; "Perforating Duodenal Ulcer", by Dr. J. E. Hannibal; (a) "Mixed Tumor, Presentation in Supratonsillar Fossa", (b) "Branchial Cyst", by Dr. J. T. Collins; "Post-Traumatic Pulmonary Embolism, Massive Infarct, Gangrene of

Lung", case presentation by Dr. C. A. Obert, with discussion by Dr. R. J. Schraff; "External Radiation in the Treatment of Cancer of the Lip and Tongue", by Dr. David Steel; "Gas Gangrene", presentation of case by Dr. J. R. Ripton.

December 5—Military Section. "Recent Development in Ordnance", by Lt. Col. P. G. Blackmore, executive officer, Cleveland Ordnance District.

December 6—Obstetrical and Gynecological Section. "Hydatidiform Mole", with report of two cases, by Dr. J. V. Heimann; "Post-Partem Perineal Repair and Care", by Dr. E. D. Saunders; "Rupture of Uterus in Labor", with report of two cases, by Dr. Burdett Wylie.

December 8—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "The Relative Value of Vitamins D₂ and D₃ in the Treatment of Ricketts", by Dr. H. J. Gerstenberger, E. Chapman, M.A., J. L. Kerbaugh, M.S., and C. Rose, M.S.; "Infarction of the Auricles; Experimental and Clinical Studies", by Dr. E. H. Cushing, Dr. E. Stanton and Dr. H. Feil; "The Effect of Vitamin C in Chronic Lead Poisoning in the Guinea Pig", (preliminary report), by L. Pillemer, Ph.D., Dr. J. Seifter, A. E. Kuehn, B.S., and E. E. Ecker, Ph.D.; "Studies on the Enzymatic Activity of Duodenal Contents", by A. H. Free, Ph.D., Dr. A. J. Beams and V. C. Myers, D.Sc.

December 13—Medical Practice Section. "Eye-Ground Changes in Vascular Disease", by Dr. B. J. Wolpaw; "Essential Hypertension; Modern Aspects of Diagnosis and Management", by Dr. R. W. Scott.

December 15—Academy Downtown Meeting. "The Vitamin B Deficiencies", by Dr. Tom D. Spies, associate professor of medicine, University of Cincinnati College of Medicine.

December 20—Industrial Medicine and Orthopedic Section. "The Use of X-Ray in the Treatment of Acute Osteomyelitis of the Fingers", by Dr. A. Marcus and Dr. Jean Groh; "Toxic Neuritis Following Using of Antitetanic Serum", by Dr. John H. Tildes; "Treatment of Eye Injuries by the Industrial Surgeon", by Dr. W. P. Chamberlain; "Treatment of Injuries of the Elbow", by Dr. D. E. Dial; "Treatment of Burns", by Dr. Norman C. Yarian; "Injuries to the Finger Joints and Prevention of Stiffness", by Dr. Walter G. Stern.—Bulletin.

GEAUGA

Officers of the Geauga County Medical Society for 1940 are: Dr. C. T. Gilmore, Chesterland, president; Dr. Alton W. Behm, Chardon, vice-president; Dr. Isa Teed Cramton, Burton, secretary-treasurer; Dr. W. C. Cory, Chardon, legislative committeeman; Dr. Lucy Stone Hertzog,

METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

IV. Measurement of Vitamin B₁ Activity

● The existence of the factor now known as vitamin B₁ was first established by the work of Eijkmann over four decades ago. In 1912, Funk (1) isolated a nitrogenous substance—capable of curing polyneuritis—to which he applied the provisional name of "beriberi vitamin." Vitamin B₁, therefore, is the first of the essential food factors to be termed a vitamin.

Despite this fact, it has only been within recent years that specific biologic methods for estimation of this vitamin—free from the serious limitations of the earlier assay methods—have become available. Many of the earlier techniques were proposed before resolution of the "vitamin B complex" into its component factors. In addition, only within the past few years have reference standards of vitamin B₁ activity—the standard absorption product and thiamin—become generally and conveniently available for use in the quantitative determination of vitamin B₁.

As indicated in a recent review (2), modern bioassay methods for vitamin B₁ are quite diverse in detail. It is hoped that identification of this dietary essential (3) will soon bring a dependable chemical method for its estimation which will permit more extensive and reliable investigation of the vitamin B₁ activities of foods than has heretofore been possible. Recent advances in the science of nutrition, however, have brought definite refinement and improvement of modern bioassay methods for determination of the antineuritic factor.

In illustration, quite recently a rat curative technique employing crystalline thiamin chloride as the Reference Standard was endorsed by the U. S. P. Vitamin Advisory Board (4), for use in determining the vitamin B₁ activities of foods or other biological

materials which contain a sufficiently high concentration of the vitamin. In this method young rats (not exceeding 50 grams in weight or 30 days of age) are maintained on a specified vitamin B₁-deficient diet until their body stores of the vitamin are depleted as judged by the onset of acute polyneuritis. Such depleted animals are suitable for use in the assay proper provided the depletion period required for the development of acute polyneuritis has not exceeded 75 days.

To each properly prepared animal is administered a single dose of the reference standard of such size that a curative period of not less than 5 or more than 15 days will be produced. Each animal is then carefully observed until the exact degree of acute polyneuritis reappears, at which time an appropriate single dose of the material under assay is administered. The duration of the cure of polyneuritis is again observed. Only data obtained from successive administration to the same animal of reference standard and assay material (using not less than 8 rats) are to be considered. Data obtained from groups of rats in which the duration of the cure following the administration of assay material is equal to or greater than that produced by the reference standard are suitable for use in calculating the vitamin B₁ potency of the materials under assay.

As has been previously described (5), the effect of commercial canning on vitamin B₁ is variable and in any specific case largely depends upon the nature of the product itself. However, among the great variety of commercially canned products are many foods which—when included in the varied diet—will contribute valuable amounts of this essential vitamin.

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(1) 1912. J. State Med. 20, 341.

(2) 1938. J. Am. Med. Assn. 111, 927.

(3) 1938. J. Am. Med. Assn. 110, 727.

(4) 1939. J. Am. Pharm. Assn. 28, 267.

(5) 1939. The Canned Food Reference Manual, American Can Co., New York.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-fifth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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Chardon, public relations committeeman.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. A. J. Knapp, East Liverpool, spoke on "Otolaryngology in General Practice—Some Practical Points", at a meeting of the Columbiana County Medical Society, Tuesday night, November 14, in the American Legion Hall, Lisbon.—News clipping.

PORTAGE

Dr. Alfred J. Silbiger, Atwater, president of the Portage County Medical Society, gave an address on "Group Medicine" at the annual business meeting of the society, Thursday evening, December 7, at the offices of Doctors Leggett and Widdecombe at Kent. Dr. Silbiger showed a splendid knowledge of his subject and a clear understanding of the attitude which the medical profession should take toward it. Dr. John M. Painter, Kent, gave the results of original research in treatment by oral pollen, in a talk on "Oral Pollen Therapy". Dr. Paul H. Zinkhan, Ravenna, spoke on "Tonsils".

The following officers were elected for the ensuing year: Dr. Harris S. Wendorf, Ravenna, president; Dr. John M. Painter, Kent, vice-president; Dr. Emily J. Widdecombe, Kent, secretary-treasurer; Dr. Edward T. Meacham, Kent, censor; Dr. Elizabeth A. Leggett, Kent, delegate; Dr. Widdecombe, Kent, alternate.—Emily J. Widdecombe, M.D., secretary.

STARK

"Relation of Painrelieving Drugs to Pulmonary Morbidity", was the subject of an address made by Dr. Ralph M. Waters, professor of anesthesia, University of Wisconsin Medical School, Madison, Wis., at a meeting of the Stark County Medical Society, Thursday evening, December 14. A sound motion picture, "Dynamics of Respiration" was shown.—Clair B. King, M.D., secretary.

SUMMIT

Dr. Frederic Schreiber, Detroit, professor of clinical neurological surgery, Wayne University College of Medicine, spoke on "Cerebral Anoxia and Anesthesia", at a meeting of the Summit County Medical Society, Tuesday evening, December 9, at the Mayflower Hotel.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Dr. Edwin J. Stedem, Columbus, spoke on "Lesions of the Cervix" at a meeting of the

Belmont County Medical Society, Thursday, December 14, at Bellaire.—News clipping.

CARROLL

Officers of the Carroll County Medical Society for 1940 are: Dr. Samuel L. Weir, Minerva, president; Dr. Carl A. Lincke, Carrollton, vice-president; Dr. Lewis C. Cellio, Carrollton, secretary-treasurer; Dr. Jos. D. Stires, Malvern, and Dr. Lincke, legislative committeemen; Dr. John H. Murray, Carrollton, and Dr. W. G. Lyle, Minerva, public relations committeemen; Dr. Glenn C. Dowell, Carrollton, and Dr. P. S. White-leather, Minerva, medical economics committeemen; Dr. Lincke, delegate; Dr. Weir, alternate.—Samuel L. Weir, M.D., president.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Dr. J. J. Coons and Dr. R. C. Kirk, Columbus, were guest speakers at a meeting of the Athens County Medical Society, Tuesday, December 5, at Nelsonville.—News clipping.

FAIRFIELD

"Diseases of the Blood" was the subject of an address made by Dr. Chas. A. Doan, Columbus, at a meeting of the Fairfield County Medical Society, Tuesday, November 14, at Lancaster.

Officers of the society for 1940 are: Dr. C. M. Alt, Baltimore, president; Dr. G. E. Gardner, Lancaster, vice-president; Dr. C. W. Brown, Lancaster, secretary-treasurer; Dr. C. G. Axline, Lancaster, legislative committeeman; Dr. C. H. Hamilton, Lancaster, public relations committeeman; Dr. L. E. Stenger, Lancaster, medical economics committeeman; Dr. Ralph H. Smith, Lancaster, delegate; Dr. Hamilton, alternate.

GUERNSEY

Dr. P. O. Wagner, psychologist with the state department of education, was the speaker at a luncheon meeting of the Guernsey County Medical Society, Thursday, November 2, at the Berwick Hotel, Cambridge.—News clipping.

MUSKINGUM

The following Zanesville physicians have been elected officers of the Muskingum County Academy of Medicine for 1940: Dr. C. F. Sisk, president; Dr. Geo. C. Malley, vice-president; Dr. Beatrice T. Hagen, secretary-treasurer; Dr. Robert S. Martin, Dr. Ward D. Coffman, and Dr. Myron Freilich, legislative committeemen; Dr. C. M. Rambo, Dr. E. R. Brush, and Dr. S. C. Ormond, medical defense committeemen; Dr. R. B. Bainter and Dr. Malley, medical economics committeemen; Dr. M. A. Loebell, delegate; Dr.



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Sisk, alternate.—Beatrice T. Hagen, M.D., secretary.

PERRY

"Surgery in the Office and in the Home" was the subject discussed by Dr. W. B. Faircloth, Zanesville, at a meeting of the Perry County Medical Society, Thursday noon, November 16, at the Park Hotel, New Lexington.—News clipping.

WASHINGTON

Members of the county nurses' association were guests of the Washington County Medical Society at a meeting, Wednesday evening, November 22, at the Hotel Lafayette, Marietta. Dr. Deane H. Northrup presented a paper entitled "Burns and Their Treatment". He reviewed treatment of burns from the earliest period of history to the present time. Dr. George F. Swan, Cambridge, Councilor for the Eighth District of the Ohio State Medical Association, gave an address on "Medical Organization in Relation to Public Needs". Dr. William L. Denny, Cambridge, president of the Guernsey County Medical Society and member of the State Association's Committee on Poor Relief, discussed the new state poor relief law. Members of the nurses' association were invited to attend so that they could be given accurate information as to why the medical profession opposes a separate board for the licensing of nurses and to impress upon them the necessity of closer cooperation between the two professions.—F. E. Eddy, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

GALLIA

At a meeting of the Gallia County Medical Society, Thursday, November 30, at Gallipolis, the following Gallipolis physicians were elected officers for 1940: Dr. N. A. Martin, president; Dr. H. B. Thomas, vice-president; Dr. D. L. Beers, secretary-treasurer; Dr. Charles E. Holzer, legislative committeeman; Dr. H. B. Thomas, public relations committeeman; Dr. Leo C. Bean, medical economics committeeman; Dr. W. Lewis Brown, delegate; Dr. S. L. Bossard, alternate.—David L. Beers, M.D., secretary.

PIKE

Officers of the Pike County Medical Society for 1940 are: Dr. W. L. McCaleb, Beaver, president; Dr. Mack E. Moore, Piketon, vice-president; Dr. Paul H. Jones, Stockdale, secretary-treasurer; Dr. L. E. Wills, Waverly, legislative committeeman; Dr. I. P. Seiler, public relations committeeman; Dr. A. M. Shrader, Waverly, medical economics committeeman; Dr. Robert T. Leever,

Waverly, delegate; Dr. Robert M. Andre, Waverly, alternate.—Paul H. Jones, M.D., secretary.

SCIOTO

Dr. H. M. Clodfelter, Columbus, spoke on "Coronary Artery Disease" at a meeting of the Hempstead Academy of Medicine at General Hospital, Portsmouth, Monday evening, November 13.—W. M. Singleton, M.D., secretary.

VINTON

Officers of the Vinton County Medical Society for 1940 are: Dr. B. F. Wills, McArthur, president and delegate; Dr. H. D. Chamberlain, McArthur, secretary and alternate.—H. D. Chamberlain, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

A very interesting and practical talk on "Differential Diagnosis of Appendicitis" was given by Dr. H. M. Clodfelter, Columbus, at a meeting of the Fayette County Medical Society, Thursday, December 7, at Washington C. H. The society elected the following officers for the ensuing year: Dr. A. D. Woodmansee, Washington C. H., president; Dr. A. S. Stemler, Washington C. H., vice-president; Dr. James F. Wilson, Washington C. H., secretary-treasurer; Dr. O. L. Wiseman, Jeffersonville, legislative committeeman; Dr. James M. Harsha, Washington C. H., public relations committeeman; Dr. N. M. Reiff, Washington C. H., medical economics committeeman; Dr. J. H. Persinger, Washington C. H., delegate; Dr. L. L. Brock, Washington C. H., alternate.—James F. Wilson, M.D., secretary.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during December:

December 4—"Traumatic Cataract", by Dr. D. G. Sanor; "Sino Bronchitis", by Dr. E. W. Harris; "Pneumonia—Case Report", by Dr. J. J. Hughes; "Dissolution and Expulsion of Common Duct Stones", by Dr. R. R. Kahle; "Painful Shoulder", by Dr. Judson D. Wilson; "Eye Injury", by Dr. Carl D. Postle; "Modification of Latzko Cesarean Section", by Dr. Dana W. Cox.

December 11—Section in General Medicine. "Can Hay Fever Really Be Cured?", by Dr. Jonathan Forman.

December 14—Annual Banquet. "Whaling for Science", by Dr. E. M. K. Geiling, professor of pharmacology, University of Chicago.—Bulletin.

PICKAWAY

Dr. George P. Sims, Columbus, spoke on "X-Ray Treatment of Non-Malignant Conditions" at a

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luncheon meeting of the Pickaway County Medical Society, Friday, December 1, at Circleville.—News clipping.

ROSS

Officers of the Ross County Medical Society for 1940 are: Dr. Harold M. Crumley, Chillicothe, president; Dr. R. E. Lightner, Kingston, vice-president; Dr. R. C. Bane, Chillicothe, secretary-treasurer; Dr. L. T. Franklin, Chillicothe, legislative committeeman; Dr. Loy E. Hoyt, Dr. D. A. Perrin and Dr. Glen Nisley, all of Chillicothe, public relations committeemen; Dr. O. P. Tatman, Chillicothe, delegate; Dr. Richard L. Counts, Chillicothe, alternate.—R. C. Bane, M.D., secretary.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ERIE

Dr. W. W. Green, Toledo, spoke on "Proctology" at a meeting of the Erie County Medical Society, Wednesday evening, November 22, at Sandusky.—News clipping.

LORAIN

At a dinner meeting of the Lorain County Medical Society, Wednesday, December 13, at the Lorain Country Club, Dr. P. C. Colegrove, Oberlin, spoke on "Subacute Bacterial Endocarditis", with discussion of pathogenesis of this condition by R. P. Fowler.—L. H. Trufant, M.D., secretary.

RICHLAND

The annual rabbit dinner of the Richland County Medical Society was held at Fairway Inn, near Mansfield, Thursday evening, November 30. Arrangements were in charge of Dr. Henry T. Stiles and Dr. Dwight A. Weir.

The following Mansfield physicians were elected officers of the society for 1940: Dr. R. V. Myers, president; Dr. L. D. Bonar, vice-president; Dr. D. D. Deeds, secretary-treasurer; Dr. Charles R. Keller, and Dr. Wilnot W. Peirce, legislative committeemen; Dr. John S. Hattery, delegate; Dr. L. C. Nigh, alternate.—L. D. Bonar, M.D., retiring secretary.

Columbus—"The Significance of Iodine in Human Behavior" was the subject discussed by Dr. George M. Curtis at a meeting of the Bexley Child Study Group.

Massillon—Dr. John R. Rohrbaugh addressed the Y.M.C.A.-Y.W.C.A. Forum on "A Doctor's Views of Marriage".

Painesville—Dr. Morris G. Carmody spoke on "The Heart" at a meeting of the Exchange Club.

Toledo—Dr. Walter H. Hartung, former state director of health, has been named superintendent of the medical service bureau of the local health department.

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OBSTETRICS—Two Weeks Course April 8, 1940. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Course starting April 8, 1940. Informal Course every week.

OPHTHALMOLOGY—Two Weeks Course starting April 22, 1940. Informal Course every week.

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Western Reserve and Brush Foundation Enter Working Agreement

Trustees of Western Reserve University and of the Brush Foundation have entered into agreements by which the scientific studies of human growth, development, and sex, initiated by the late Dr. T. Wingate Todd for the Brush Foundation and other foundations, and future scientific studies sponsored by the Brush Foundation, will be conducted in the School of Medicine of Western Reserve University, through a full-time director of the Brush Foundation appointed by this Foundation with the concurrence of the University, and affiliated with the Department of Anatomy of the School of Medicine.

In accordance with this arrangement, Dr. William W. Greulich, Research Associate in Anatomy and Physical Anthropology at Yale University and Research Adviser of the Brush Foundation, has been appointed director of the Brush Foundation and Professor of Physical Anthropology and Anatomy in the Department of Anatomy of the School of Medicine. In addition to his duties as director of the Brush Foundation, Dr. Greulich will participate in the departmental teaching of anatomy under Dr. Normand L. Hoerr, Professor of Anatomy and head of the department.

Dr. William W. Greulich was born in Columbus, Ohio, July 24, 1899, and received his bachelor's degree at Kenyon College; his master's degree at the University of Denver, and his Ph.D. at Stanford.

Dr. Greulich has held the position of instructor in biology, Regis College (Denver), instructor in biology, University of Colorado, teaching assistant in anatomy, Stanford University, General Education Board Fellow in Anatomy, Yale University, Research Assistant in Anatomy, Research Associate in Anatomy and Physical Anthropology, and Director of the Adolescence Study Unit, Yale University.

His publications include studies of human twins, sex hormones, and the human pelvis. He is co-author of a handbook of "Methods for the Study of Adolescent Children" with D. S. Day, S. E. Lachman, S. E. Wolfe, and F. K. Shuttleworth, National Research Council, 1938.

Athens—A two-story addition, with accommodations for 15 patients, has been opened at Sheltering Arms Hospital.

Cincinnati—Dr. Martin H. Fischer spoke on "The Nature of Lyophilic Colloid Systems" at a meeting of the Cleveland section of the American Chemical Society.

Mt. Gilead—Dr. Todd Caris, coroner of Morrow County for many years, has resigned because of ill health.

Essay Contest

The Mississippi Valley Medical Society offers annually a cash prize of \$100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner of medicine. Certificates of merit may also be granted to the physicians whose essays are rated second and third best. Contestants must be members of the American Medical Association who are residents of the United States. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society at Rock Island, Ill., September 25, 26, 27, 1940, the society reserving the exclusive right to first publish the essay in its official publication—the *Mississippi Valley Medical Journal* (incorporating the *Radiologic Review*). All contributions shall not exceed 5000 words, be typewritten in English in manuscript form, submitted in five copies and must be received not later than May 1, 1940. Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Ill.

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O.S.J. 3

Conference on Medical Service Scheduled for Chicago on February 11

The National Conference on Medical Service (formerly the Northwest Regional Conference), will hold its fourteenth Annual Meeting at the Palmer House, Chicago, Sunday, February 11. All state medical societies have been invited to send representatives to the conference, designed to provide a medium for the verbal exchange of information on progressive medical service activities being conducted throughout the United States, and to discuss the solution of problems arising from the distribution of medical service to all classes. The conference is not official nor political, is not connected with any other organization or committee, and its deliberations result in no resolutions or motions. It is informal, has no dues, by-laws, or formal organizational structure, but affords an opportunity for physicians who are officially associated with or personally interested in medical economics, to exchange ideas for the good of the profession and the public.

The 1940 program, designed to give sound practical information, includes symposia on group medical care and group hospitalization programs, the allocation of Federal funds to the state, the Washington scene, effective public relations by physicians, and medical welfare programs (including the Federal assistance groups, outdoor relief group, and medical and surgical care in hospitals).

Seventeen men, representing as many states in the Union, will be on the program of this one-day meeting. It is anticipated that some 35 states will send representatives to the conference.

All talks will be presented verbally—no manuscripts allowed—and will begin and end on time. The meeting will start at 10:00 a.m. and end at 4:15 p.m.

Dr. L. Fernald Foster, Bay City, Michigan, is president of the National Conference, and Dr. Forrest L. Loveland, Topeka, Kansas, is secretary.

Dr. Titlow Honored

Dr. Benneta D. Titlow, who recently retired after 47 years in the practice of medicine at Springfield, was honored by the Clark County Medical Society with a formal dinner, Friday evening, November 10, at the Springfield Country Club. Dr. C. E. M. Finney, president of the society, presided and the principal address was made by the Hon. Charles B. Zimmerman, Judge of the Ohio Supreme Court. The dinner was arranged by a committee consisting of Dr. J. H. Riley, Springfield, chairman; Dr. E. H. Long, South Vienna; Dr. E. C. Nehls, South Charleston; Dr. J. H. Rinehart, Dr. G. C. Ullery, Dr. N. L. Burrell and Dr. G. M. Lane, Springfield.

Irresponsible Insurance Agent Finds Physicians "Easy Pickings"

Twenty out of the 35 recent victims of an ex-insurance agent were physicians, the State Division of Insurance reports. Jack J. Anderson, Attica, who formerly represented the Great Northern Life Insurance Company, Chicago, Ill., and the Loyal Protective Life Insurance Company, Boston, Mass., is alleged to have "sold" life, health and accident policies throughout central and western Ohio, collecting the initial premium but in a large number of instances, neglecting to forward that payment to the insurance companies. His license as an insurance agent in Ohio expired July 1, 1939, but officials of the division of the insurance and the insurance companies have been unable to locate him and he still retains his credentials and application blanks. Any physician who is solicited by Anderson should notify the State Division of Insurance, State House Annex, Columbus, immediately.

Meeting on Industrial Health

The Second Annual Congress of Industrial Health, sponsored by the American Medical Association, will be held at the Palmer House, Chicago, Monday and Tuesday, January 15-16. Included among the topics to be discussed are: vocational rehabilitation in relation to medical practice and workmen's compensation procedure; industrial psychiatry and mental hygiene; syphilis in industry; physical examinations and disability evaluation. On Wednesday, January 17, the day following the Congress, the Chicago Medical Society will conduct all-day clinics illustrating practical problems in industrial medicine and traumatic surgery at St. Luke's Hospital, Chicago. All physicians interested are cordially invited to attend. The complete program appears in the December 2 issue, *The Journal of the American Medical Association*, page 2064.

CLASSIFIED ADVERTISEMENTS

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THE COMMON COLD IS IMPORTANT

"But the common cold, while not threatening life, is, because of its prevalence, a very important disease, accounting for a tremendous loss of working time and a still greater loss of working efficiency."

Jerome R. Head, Illinois Med. J.
September, 1939

COLDS are not to be regarded lightly. The patient with a stuffed head and running nose is not asking for too much when he seeks relief.

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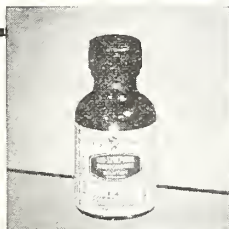
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Appointed to House Staff Mount Sinai Hospital, Cleveland

Dr. H. L. Rockwood, director of Mount Sinai Hospital, Cleveland, has announced the following house staff appointments beginning July 1, 1940: Dr. Allan Bookatz, senior surgical resident; Dr. Marvin Sadugor, junior surgical resident; Dr. Nathan Alpers, resident in medicine; Dr. Arthur L. Glassman, resident in orthopedics and specialties; Dr. Daniel S. Wertheimer, resident in obstetrics; Dr. Theodore Bronk, resident in pathology; interns—Dr. Arthur Adelman, University of Kansas School of Medicine; Dr. S. L. Beranbaum and Dr. Seaburt Goodman, University of Toronto School of Medicine; Dr. J. S. Geller and Dr. David H. Schneider, Western Reserve University School of Medicine; Dr. Aaron I. Simon and Dr. James D. Goodman, Ohio State University School of Medicine; Dr. Milton Joyce, University of Wisconsin Medical School; Dr. Harold Klein, Georgetown University Medical School; Dr. Iver S. Ravin, Boston University School of Medicine; Dr. Carl Rothschild, University of Maryland Medical School; Dr. Morton Korenberg, McGill University Faculty of Medicine; dental intern—Jerome Elman, D.D.S., Western Reserve University School of Dentistry.

All of the appointees to the resident staff and Drs. Geller, Schneider, Simon, Goodman and Elman, interns, are residents of Cleveland.

Psychiatric Meeting in Cincinnati, May 20-24

The Cincinnati members of the American Psychiatric Association are pleased to announce that the next meeting of the Association will be held at the Netherland Plaza, Cincinnati, May 20-24. All physicians, nurses and social workers who have a special interest in psychiatry are invited to attend the scientific session of the meeting, whether or not they are members.

Members of the local committee on arrangements are: Dr. Thomas A. Ratliff, chairman; Dr. Emerson A. North, vice-chairman; Drs. E. A. Baber, Asher T. Childers, R. Harvey Cook,

A. W. Foertmeyer, Douglas A. Johnston, Jack Hertzman, Charles E. Kiely, Joseph C. LaValle, Maurice Levine, Louis Lurie, Howard D. McIntyre, Philip Piker, William Ravine, C. E. Shinkle and Alphonse R. Vonderahe.

Rules Hospital Service Associations Are Subject to Taxation

Non-profit hospital service associations organized under the provisions of Senate Bill 181, enacted at the 1939 session of the Ohio General Assembly, are not immune from taxation, Franklin County Common Pleas Judge John R. King held in a decision December 11, declaring that the section of the act which exempted such associations from taxation on the ground that they are charitable and benevolent institutions, is unconstitutional.

The Court also ruled that the section which permitted voluntary payroll deductions of public employees who are members of group hospitalization associations is not an improper use of public funds.

Validity of the law was questioned by Nathan Mayer, a taxpayer, and the Mutual Hospitalization Association of Ohio, a company engaged in the sale of hospitalization insurance.

Dr. Freiberg Honored

Friends and colleagues of Dr. Albert H. Freiberg, Cincinnati, recently retired professor of orthopedic surgery at the University of Cincinnati College of Medicine, paid tribute to him at a testimonial dinner Wednesday night, December 6, at the Netherland Plaza. Dr. Martin H. Fischer was the toastmaster. Speakers included: Dr. Raymond Walters, president of the University; Dr. Stanley E. Dorst, acting dean of the College of Medicine; Dr. Mont R. Reid, Dr. David I. Wolstein and Rev. Jesse Halsey, pastor of the Seventh Presbyterian Church. Dr. Freiberg was presented with a portrait of himself painted by John E. Weis. An active worker in medical organization, Dr. Freiberg was president of the Ohio State Medical Association in 1929-30.

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Henri Coutard, M.D.

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Case No. 1 (C. S.) Male, white, age 25. Acute head cold. After a few inhalations from 'Benzedrine Inhaler' the turbinates were shrunk to normal within seven minutes.

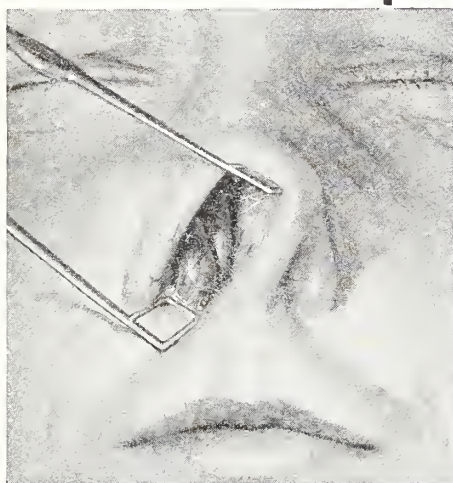


Fig. 1—Time 2:15 P.M.
Before treatment.



Each tube is packed with amphetamine, S. K. F., 325 mg.; oil of lavender, 97 mg.; menthol, 32 mg. 'Benzedrine' is S. K. F.'s trade mark, Reg. U.S. Pat. Off.

'Benzedrine Inhaler' is particularly valuable when used at the onset of a head cold—at the very first sneeze. By relieving congestion, it improves respiratory ventilation and assists in maintaining drainage of the nasal accessory sinuses.

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Fig. 2—Time 2:22 P. M.
After using 'Benzedrine Inhaler'.



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Court Renders Decision Fixing Time Limit of the "Last Sickness"

An interesting decision involving an unusual angle pertaining to the law making "expenses of the last sickness" a preferred claim against the estate of the deceased was handed down recently by the Court of Appeals for Lucas County in the case of *Murphy, Appellee, v. Langa, Admx., Appellant*, in which a verdict and judgment for *Murphy*, the claimant, had been rendered by the Common Pleas Court.

The Court of Appeals' two-one decision, which reversed the judgment of the Common Pleas Court, is summed up in the following syllabus: "Where a physician, for a period of several months, treated a patient for a particular disease, and upon discontinuance of the treatment the patient resumed her usual occupation for nearly a year, at the end of which period treatments for the same disease were again resumed by the same physician, the fees for the treatments given prior to the interim when she ceased to be a patient and resumed work, are not 'expenses of the last sickness', within the meaning of Section 10509-121, General Code, so as to be a preferred claim against the assets of the estate of the patient, although the disease of which the patient died was that for which the physician first examined and treated her".

The judge who dissented, based his decision on these points:

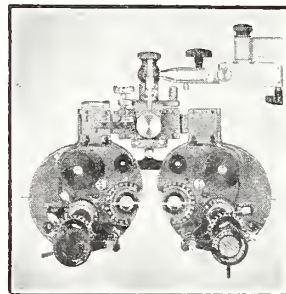
"The statute does not provide that time shall be the determining factor, or even a determining factor, in deciding whether medical services were or were not rendered in and during the last sickness of a decedent. Assuming the Legislature could fix a limitation of time, it has not done so.

"It appears to me such arbitrary fixing of a time limit would not be a fair test, for what constitutes a 'last sickness' would depend upon so many conditions—the nature of the disease, its malignancy, the resistance of a patient to a particular disease, the patient's age and general physical condition, his response to treatment, his willingness to cooperate and many other conditions.

"... On the record before us, I think the appellee's bill comes fairly within the definition in the statute, 'expenses of last sickness'—the only definition that could reasonably be used, and to be applied largely within the wisdom and discretion of the Probate Court, considering the nature of the disease and all other circumstances.

"I am particularly not in sympathy with the theory advanced in argument and suggested in some decisions cited, that appellee should forfeit his fee, or part of it, because he did not see fit to sue a dying woman and send a process server to her bedside. I think the judgment should have been affirmed."

The Court of Appeals' decision was not appealed to the Supreme Court.



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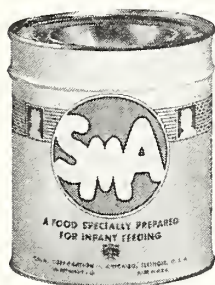
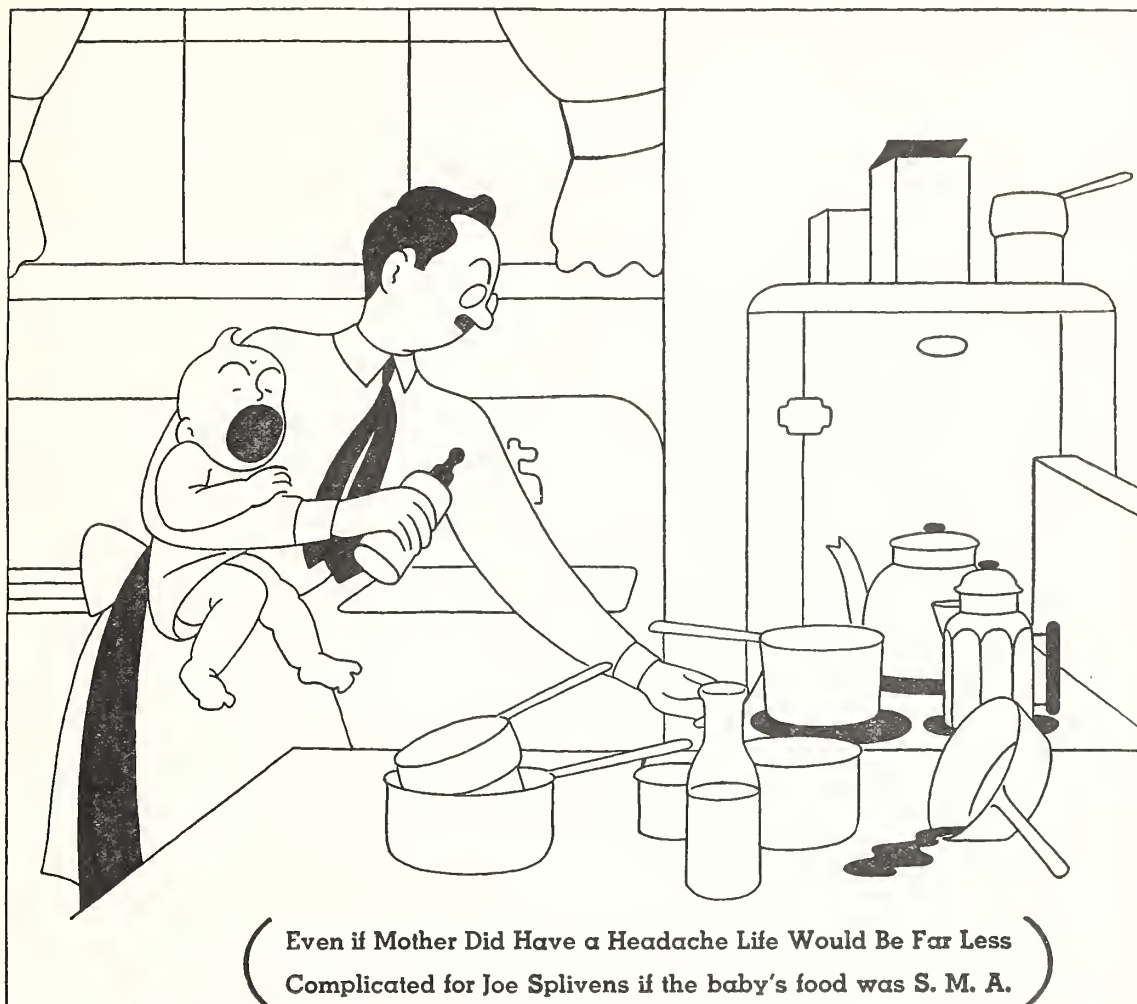
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The Physician's Bookshelf

Gonorrhea in The Male and Female. By P. E. Pelouze, M.D., of the University of Pennsylvania. *W. B. Saunders, Philadelphia*, \$6.00. Presents the subject completely and clearly in this third edition. Many new ideas and facts are presented with national campaigns for the control of venereal diseases for the modern background. While its author is a crusader for the idea that the victim is a patient with a disease and not a sinner doing penance and cursed with a social stigma, he nevertheless is highly critical and therefore a safe man who has written a book which you should own even if you do not treat the disease—just in order to answer the questions which are always being asked these days.

The Woman's Almanac. (\$1.00, *The Oquaga Press, 570 Lexington Ave., New York*). The new 1940 edition of this annual contains over 300 pages of handsome photographs and lively articles on all the women who have figured in important news of the past year, and incidentally on countless women who are not in the news, but whom the Almanac has discovered. There are 12 sections, one for each month, devoted to new recipes and menus, and to health and beauty.

Forensic Medicine. By Sydney Smith, D.D. Regius Professor of Forensic Medicine in the University of Edinburgh with a chapter on American Medico-Legal Procedure by Alan R. Moritz, M.D., Professor of Legal Medicine in Harvard University. (\$7.50, *Little, Brown and Company, Boston*). A well written text which should be in the hands of all who are in the legal side of medicine. The chapter by Alan Moritz who is remembered by all of us as Assistant Professor of Pathology in the Western Reserve University makes this sixth edition the more useful to its American owner.

The Health of College Students. By Harold S. Diehl, M.D., and C. E. Shepard, M.D. (\$1.50, *American Council On Education, Washington, D. C.*) is the report to the American Youth Commission by the Council and is a study of college students and 90,000 C.C.C. enrollees. The results are of deep concern to all of our profession who come in contact with the college student, and who does not?

Cardiovascular Diseases. By David Scherf, M.D., and Linn J. Boyd, M.D. (\$6.50, *C. V. Mosby Company, St. Louis*) is a small book presenting a concise discussion of the most important phases of cardiology in a thorough up-to-date manner and in a way that is easy to read. It is a book which will prove its worth to any physician who will add it to his working library.

The Infant and Child in Health and Disease With Special Reference to Nursing Care. By John Zahorsky, M.D., and Elizabeth Noyes, R.N., second edition (\$3.00, *C. V. Mosby Company, St. Louis*) has been changed to meet the modern requirements which stress the child and infant not just the diseases or nursing of the sick child. An excellent text.

Medical State Board Examinations. Topical Summaries and Answers. 4th Edition. By Harold Rypins, M.D., Secretary of the New York Board (\$4.50, *J. B. Lippincott Company, Philadelphia*) is just what it aims to be "An organized review of actual questions" given in such examinations throughout the United States.

Peripheral Vascular Diseases. By Wm. S. Colens, M.D., and N. D. Wilensky, M.D. (\$4.50, *C. C. Thomas, Springfield, Ill.*) is a very complete and up-to-date monograph on this subject. Here as is true so frequently in medicine, so much depends upon the early diagnosis and prompt differentiation. The subject is presented in a most usable fashion by these two experts. They have done it through simplification which is always the sign of the master.

Hay-Fever. What To Do About It. By Harry S. Bernton, M.D. (\$1.00, *Ransdell, Inc., Washington, D. C.*) crowds into 76 well written pages about all that a layman would want to know about the subject even if he himself were a victim. The reviewer is using it now in his collection of loaning books, and recommends it highly for this purpose.

The Enchanted Islands. By E. Klaveness, M.D. (\$2.00, *The Pyramid Press, New York City*) is a vivid day-by-day account of this well known physician's trip on a freighter through the Orient. It makes a darn good substitute for those of us

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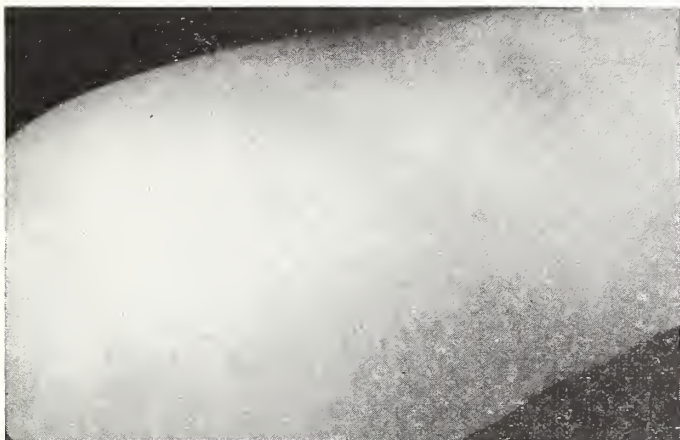
Oakland Station, Pittsburgh, Pa. OHI-40

STUDIES IN THE AVITAMINOSES



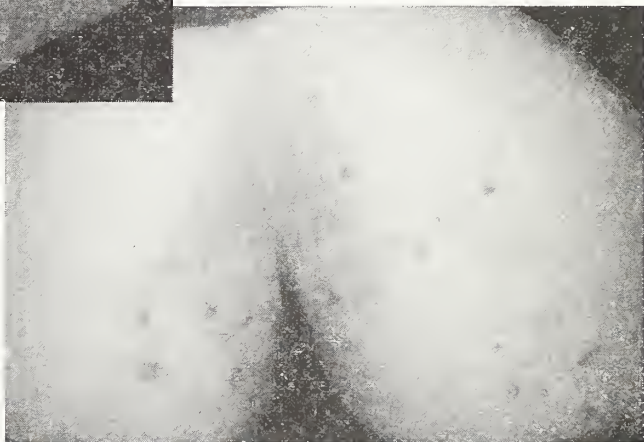
This page is the first of a series on vitamin deficiencies presented by the research division of The Upjohn Company, not merely because of the profession's widespread interest in the subject, but also because of the service which these reproductions might render toward earlier recognition of vitamin deficiency states.

The Cutaneous Manifestations of Vitamin A Deficiency



Goosepimple-like papules, occasionally seen in vitamin A deficiency, occur most frequently on thighs and arms, but may appear anywhere on the skin. More common than the acneform eruption.

Acneform papules of vitamin A deficiency. Pustulation is rare, but crusts and scales may be observed. Dryness of involved skin precedes both types of lesions.



Although the classic manifestations of vitamin A deficiency are familiar to every physician, many of these represent late stages of deprivation. In some cases, cutaneous changes may provide an opportunity for earlier recognition. These cutaneous changes, when fully developed, consist of two distinct types of eruptions—a goosepimple-like papule and an acneform lesion in which pustulation rarely occurs. The absence of perspiration is due to atrophy of the sweat glands and keratinizing metaplasia of the ducts. The papular cornified lesions are due to the keratinization of the sebaceous glands and hair

follicles. In some subjects, accentuation in pigmentation due to an increase in melanin and melanin-building pigments is observed. Unlike the ocular manifestations of vitamin A deficiency, the skin lesions respond slowly to specific therapy, requiring from 4 to 12 weeks for their eradication.

A two-page insert, presenting full-color reproductions of vitamin A deficiency lesions, and so organized that it may be easily retained for future reference, appears in the January 20 issue of the Journal of the American Medical Association.



who cannot do the real thing. Its interesting description, its advice about what to do, what to take and how to go, its delightful humor and even its personal incidents should endear this book to physicians most of whom love to travel and most of whom do it in the old easy chair.

Modern Clinical Psychiatry. By Arthur P. Noyes, M.D. (\$5.00, *W. B. Saunders Company, Philadelphia*) is in the second edition. It has been extensively revised and had added to it much new material from the literature of the last five years. An increased emphasis has been placed on the unitary reacting organisms and the difficulties which we have as human beings experienced in our psychobiological adaptations. Especially stimulating is the new chapter on some of the psychiatric aspects of general medicine.

Surgery of the Eye. By Meyer Wiener, M.D., and Bennett Y. Alvis, M.D. (\$8.50, *W. B. Saunders Company, Philadelphia*) represents the successful attempt to produce a handy atlas for the practicing ophthalmologist and the student of ophthalmology by the authors who are well known members of the faculty of Washington University. In keeping with the modern trend 396 illustrations make clear the detail of the text. In this they have had the advantage of a physician artist, Dr. A. J. Hofsommer.

Factual Data on Medical Economics. By the Bureau of Medical Economics, A.M.A. (\$0.50) is a real arsenal of reliable data concerning physicians, hospitals, vital statistics, sickness insurance, etc, etc. It is replete with tables and graphs and provides the answer to innumerable questions that you and I must have if we are to successfully defend our means of livelihood.

Your Health Dramatized, by W. W. Bauer, M.D. and Leslie Edgley, (\$2.25, *E. P. Dutton and Company, New York City*), is a group of selected radio scripts on public and personal health by the director of the Bureau of Health Education of the American Medical Association. It is now apparent to all who are interested in public education that the program must be useful and now the dramatization of the story is the best method of getting attention of the radio player. All who are interested in this subject should have this book.

1938 Transactions of the Third International Goiter Conference and the American Association for the Study of Goiter, (\$3.50, *J. C. Hamilton, Goiter Publications, Portland, Oregon*), contains papers by several Ohio physicians—Wm. McK. German of Cincinnati, O. P. Kimball, George Crile, Jr., U. V. Portmann, E. P. McCullagh, H. J. John, and E. J. Ryan of Cleveland; Andre Crotti, Karl P. Klassen and George M. Curtis of Columbus. There are also scores of papers by

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For several years the Citrus Commission of the State of Florida has supported chemical and nutritional studies on grapefruit in the laboratories of one of America's great universities. The figures given below are based on analyses of large numbers of grapefruit, conducted over a period of three years, together with data obtained from various sources in the literature of medicine and chemistry:

Per 100 c.c. freshly expressed juice

VITAMIN C	40 mgm.
VITAMIN B	20 Sherman units
VITAMIN G	Present
VITAMIN A	No data
CALCIUM	9 mgm.
PHOSPHORUS	15 mgm.
CARBOHYDRATE	10.1 gm.
CITRIC ACID	1.31 gm.
POTENTIAL ALKALINITY	4.5 c.c. N/alkali
FUEL VALUE	45 calories

Many investigations have shown that the

American diet in general is markedly deficient in vitamins and mineral salts, and that deficiency disease is of frequent occurrence.

Counsel by physicians, dentists and dietitians to supplement the usual diet by the addition of grapefruit, should help to raise the present "minimum" intake of these accessory substances to that "optimum" which is requisite for buoyant health.

Grapefruit may be enjoyed at meal-times as entree, salad or dessert, or the juice may be taken as a pleasant and healthful drink at any time.

The Citrus Commission of the State of Florida has prepared for the professions a book entitled "Citrus Fruits and Health," which discusses the use of these valuable foods in health and disease. It will be sent to any physician, dentist or nutritionist on request.



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STATE OF FLORIDA**

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other distinguished authorities from many countries. It stands as a strategic reference volume for all who are interested in the subject of goiter.

What It Means to Be a Doctor, by Dwight Anderson, (Cloth \$1.00 and paper 25 cents, *Medical Society of the State of New York, 2 East 103rd St., New York City*), is a well written tract attempting to glorify the physician. It will prove pleasing reading to most any physician and can well be used as waiting room literature. To get the public to accept it as a whole as gospel is a big job in public relations; probably just as well to use it freely on the patients in our waiting rooms who are already conditioned to receive our message.

Epidemic Encephalitis, Etiology, Epidemiology, Treatment. Third Report by the Matheson Commission, (\$3.00, *Columbia University Press, New York City*), brings much of the subject up to date. It emphasizes what has been done and what should be done next to solve this problem. An essential book for all who are interested in any way with epidemic encephalitis.

The Massachusetts General Hospital—Its Development, 1900-1935, by Frederic A. Washburn, M.D. (\$4.00, *Houghton, Mifflin Company, Boston*), brings the story of this famous institution up to date. It does more than that. It is a good picture of what has happened in this century to institutional medicine in America. It is an inspiration to those who are trying to use tradition to nurture modern idealism.

Textbook of Medical Treatment, by various authors, (\$8.00. A William Wood Book, *Williams and Wilkins, Baltimore*), has the very great advantage that its authors, outstanding British authorities, give explicit direction in the use of the treatment recommended and yet by wise selection and a succinct manner of writing, they have crowded in a surprising amount of useful information. It is recommended for these reasons and because it gets away from much of the stereotyped and gives us a new viewpoint.

Manual of Urology, by R. M. LeComite, M.D. Second Edition, (\$4.00, *Williams and Wilkins, Baltimore*), presents the fundamentals of the subject in a succinct and clearcut manner, in a way that appeals to the younger minds. It is a most compact and really complete text by the professor of urology in Georgetown University. Certainly an excellent book for its intended purpose.

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Errors in Roentgen Diagnosis

PART I—PSEUDO-FRACTURE

GEORGE L. SACKETT, M.D.

THE present-day dependence upon roentgenographic examination in cases of suspected bone injury forces an increasing responsibility upon the physician. He must not err by overlooking a fracture which is present but difficult to demonstrate nor should he erroneously read into the film a fracture which is not there.

It is with this latter error, the pseudo-fracture, that this outline deals. The physical and economic harm which can arise from these errors is obvious; unnecessarily prolonged fixation is harmful and expensive to the patient, the cost of these erroneous reports to industry and to liability insurance companies is incalculable.

Most of the errors to be described are noted in the standard texts on roentgen diagnosis. The author's object has been to recapitulate them and aid in their recognition by showing illustrations of practical problems.

In general, any disturbance in the continuity of the architecture of bone as shown by lines of increased or diminished density may be due to a fracture. However, such appearance may be due to a condition entirely normal for the individual and if this is not recognized an erroneous diagnosis of fracture may be made.

I. NATURAL LINES OF DIMINISHED DENSITY

A. Blood vessel grooves, nutrient canals and venous channels.—The blood vessel grooves are noted particularly in the flat bones as the skull, ilium, scapula and mandible.

In the ilium, scapula and mandible the anatomical position is uniform and thus readily recognized. In the skull the typical arborization of the grooves usually makes the differentiation

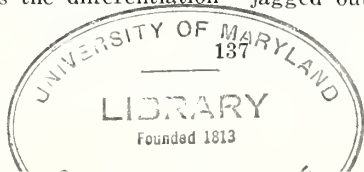
The Author

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from a fracture comparatively simple. True fracture lines are more sharp in outline, narrower and more dark than the vessel grooves. In the shafts of the long bones and phalanges the nutrient canals appear as slits in the cortex mimicking an incomplete fracture. They are differentiated by the fact that the margins of the line of diminished density are of increased density; they extend only through one side of the shaft. In the fingers the occurrence of these lines in several phalanges is a help in identifying them.

The venous channels seen commonly in the vertebral bodies of the immature skeleton (and not rarely in adults) cause confusion only when their uniform situation is not familiar to the radiologist. Best seen in lateral view they are situated in the central portion of the vertebral body and are more conspicuous anteriorly (Fig. 1). The venous channels in the diploe of the skull, (Fig. 9) are recognized by their wandering anastomosing pattern, varying width and poorly defined borders.

B. Suture Lines.—These are noted in the skull and facial bones. Their anatomical position and jagged outline is usually typical although vari-



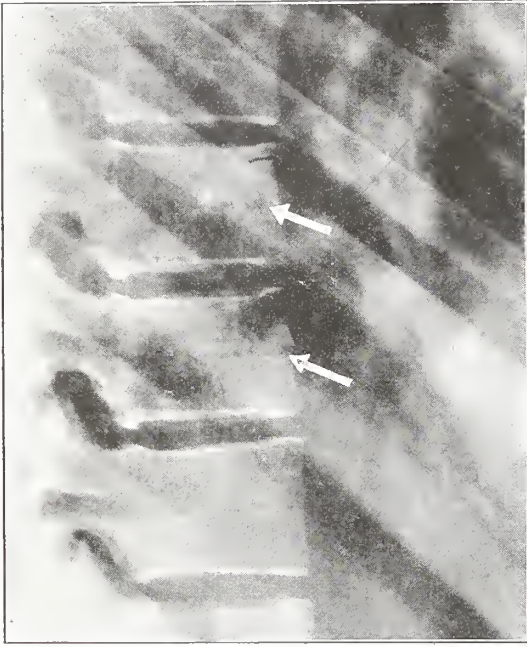


Fig. 1. Central vascular canal of the vertebral body, often more conspicuous especially in younger individuals.

ants in position occur commonly about the temporo-sphenoidal-frontal sutures as seen in the lateral skull views (Fig. 2). In these cases the appearance of a fracture is accentuated because the junction of the bones is edge to edge instead of the usual overlapping, squamous suture which is practically invisible in the roentgenogram. Variations in outline occur commonly in the sagittal and temporo-occipital sutures and these

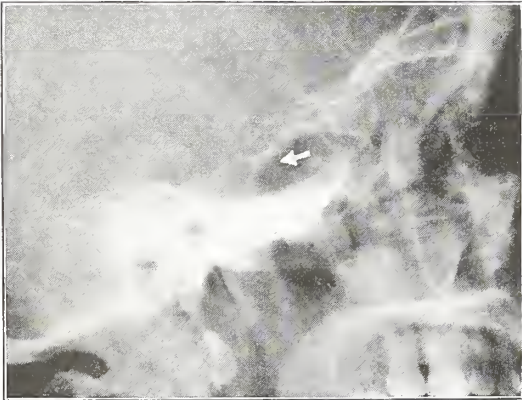


Fig. 2. When the suture between the sphenoid ala and temporal or frontal bone lacks the usual imbrication the junction may show as a dark fairly straight line simulating a fracture.

are confusing when the usual "saw-tooth" appearance is lacking and the suture lines are straight (Fig. 3).

Views showing the skull sutures tangentially should confuse none familiar with the expected anatomical position of the sutures yet these are

frequently reported as fractures. The fronto-parietal, occipito-parietal and temporo-parietal sutures are the most commonly misinterpreted in this projection. In the antero-posterior view of the temporo-parietal suture which is squamous in character may show the two bones separated by as much as 1 to 1.5 mm. due to distance magnification and has often been mistaken for a depressed fracture (Fig. 3).

C. Epiphyseal and Apophyseal lines.—The epiphyses of the commonly examined parts in children such as the wrist, elbow, shoulder, hip, knee and ankle are so familiar that they hardly need consideration yet they vary in size and shape to such an extent that views of the opposite side are advisable in practically every case. Some of the late appearing, less commonly seen ossification centers are noted in the scapula (inferior angle), (Fig. 4) the medial end of the clavicle

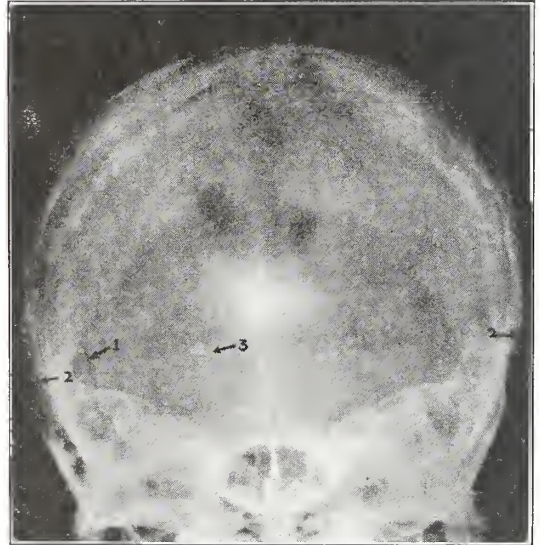


Fig. 3. The temporo-occipital suture (1) often lacks the usual saw-tooth appearance and may be confused with a fracture. An edge-on view (2) of the temporo-parietal suture often shows an apparent separation of the bones. (3) Artefact due to defect in intensifying screen.

and superior and inferior margins of the sacroiliac joints (Fig. 5).

Incompletely fused epiphyses and epiphyses which have double ossification centers may occur about any joint but are particularly common at points of tendon attachment as the olecranon, calcaneus and tibial tubercle. These may give the appearance of fragmentation due to trauma. If the rule of making comparison views of the opposite side is adhered to in all problems dealing with the developing skeleton and a careful clinical check made there should be few errors.

The differentiation of a cartilage line from a fracture line is important in recognizing epiphyses and apophyses as well as other conditions to be described such as divided bones, accessory



Fig. 4. The epiphysis at the lower angle of the scapula appears about the 15th year and is fused from the 18th to 20th years.

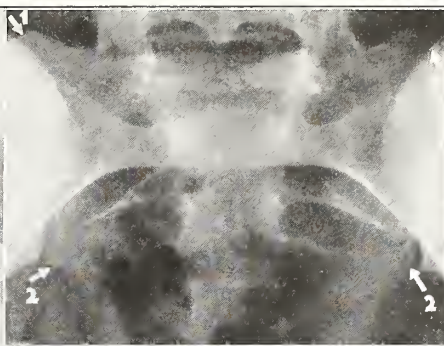


Fig. 5. Late epiphyses of sacrum. (1) Epiphyses of transverse processes. (2) Ventral epiphyses of costal processes.

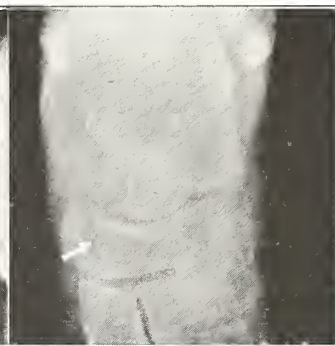


Fig. 6. This striking simulation of a fracture is occasionally caused by the overlapping of marrow spaces between trabeculae.

bones and ununited epiphyses. The following tabulation by Ferguson is a summary of the differential points:

Cartilage Lines	Fracture Lines
1. Abutting bone surfaces smooth and often straight	Abutting surfaces sharply irregular or jagged
2. Similar width throughout	Wider at one end than the other
3. Bone at margins of line rounded	Bone at margin of line angular

D. Overlapping of Marrow Spaces Between Trabeculae.—This confusing situation can occur even when films show such excellent detail that the finest trabecular lines are visible (Fig. 6). Differentiation from fracture without displacement may be quite difficult and depends upon the inability to demonstrate actual interruption of trabecular structure and a negative verdict should be rendered only after numerous views at various angles have shown no true evidence of fracture.

II. NATURAL LINES OF INCREASED DENSITY

Natural lines of increased density may be mistaken for compression fractures or for healed fractures and in the latter instance have a particularly pernicious medico-legal significance since injuries which were never present may be read into the films.

A. Condensation in the cortex at recently united epiphyses (Fig. 7).—These lines have a uniform situation, a characteristic appearance and are noticeable in the first few years after the closing of the epiphyseal line. Transverse linear scoring in the long bones near the extremities of the diaphysis is due to some constitutional disturbance and not to trauma.

B. Variants in bony contour of the cortex particularly in the skull, scapula and at the knee joint (Figs. 8-9) may produce confusing shadows which must not be mistaken for depressed or impacted fractures. Along the attachments of ligaments the cortex of the bone may be heavier

than other portions, for example in the deltoid eminence of the humerus, and this is not to be mistaken for an old fracture which has healed with thickening of the bone. Irregularities of the inner table of the skull (Fig. 9) near the vertex should confuse no one who has examined the inner surface of calvaria removed at autopsy yet these irregularities are repeatedly presented to the courts and to industrial insurance companies as "depressed fractures now healed". Another commonly mis-diagnosed irregularity of this type is

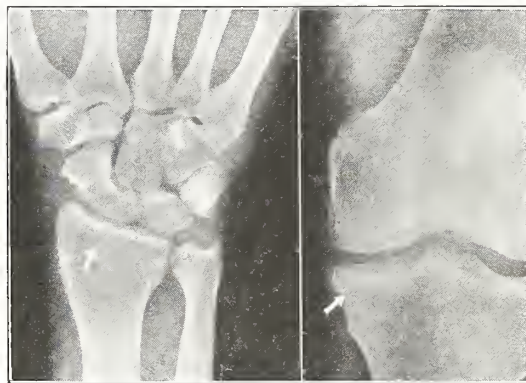


Fig. 7. The condensation in the cortex at the site of a recently united epiphysis may simulate an impacted fracture.

Fig. 8. A variant in body contour simulating the buckling due to compression fracture.

seen in the elbow joint (Fig. 10); a sharp triangular projection of bone about 2x3 mm. is seen projecting into the joint space between the trochlea and capitulum. This shadow is of slightly different density than the adjacent joint margin and is wrongly interpreted as a fractured fragment or loose body within the joint. It is caused by a downward projection of the sharp lateral margin of the olecranon fossa.

A wedge-shaped appearance of a vertebral body as seen in the lateral view (Fig. 11), should be carefully differentiated from a compression fracture. The lower thoracic spine is a common

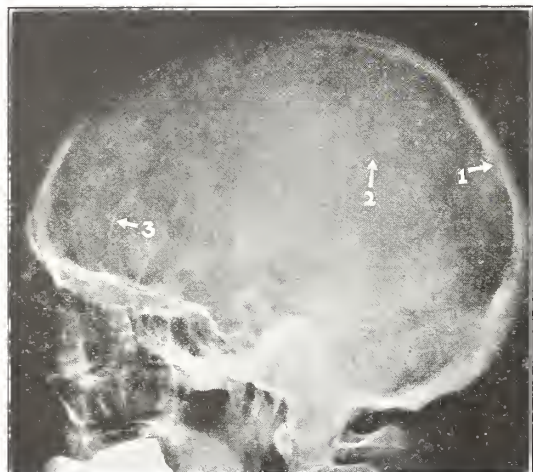


Fig. 9. This normal lateral skull view shows (1) unusual unevenness of the inner table, (2) venous channels of diploe, (3) artifact due to adhesive on dressing.

site of this variation. It can be differentiated from a compression fracture by the absence of actual buckling of the bone as is commonly seen along the anterior superior border of the vertebral body in a true fracture and also by the fact that the compression appears to be of the inferior



Fig. 10. This small bony projection into the elbow joint space is the lateral margin of the olecranon fossa and is occasionally mistaken for a fracture or foreign body in the joint space.

surface only, which is rarely the case in a true fracture.

Anomalous bony development producing synostoses occur commonly in the spine and are due to incomplete segmentation. The commonest example is the transitional lumbosacral vertebra where one or both transverse processes is ex-

panded and more or less fused with the sacral wing. Similar failures in segmentation are not rare elsewhere in the spine where they are manifest as complete or partial synostoses of the vertebral bodies (usually anteriorly). All these anomalies are readily differentiated from ankylosis due to injury or disease by the normal trabecular architecture, the normally formed cortical margins, and absence of evidence of disease or injury.

III. LINES OF DIMINISHED OR INCREASED DENSITY DUE TO OVERLAPPING OF STRUCTURES

Misinterpretations as a result of this condition are found particularly in the tarsus and about



Fig. 11. The wedge shaped vertebral bodies illustrated are common in the lower thoracic spine and should not be confused with compression fractures.

the articular processes of the spine in the lumbosacral region (Fig. 12), although the possibility of this error must be kept in mind in any roentgenogram where bones overshadow each other. In the bones of the foot the solution lies in obtaining sharp views in various planes in order to demonstrate the normal structures. In the case of the spine in addition to clear detail films there is a definite advantage in stereoscopic studies since by this means the confusion of overlapping shadows becomes a discernible anatomical study. A common and interesting example of confusing overlying shadows is shown in the upper cervical spine through the mouth: the interspace between the central incisor teeth overlaps the odontoid process and produces what appears to be a vertical split in it. The odontoid

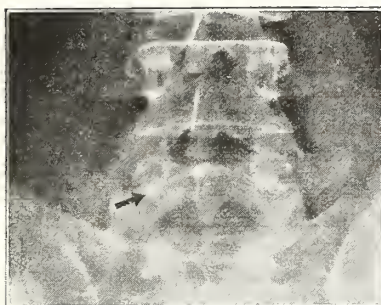


Fig. 12. The superior-medial margin of the articular process of the first sacral vertebra overlaps the neural arch of the fifth lumbar and gives the appearance of a fracture.



Fig. 13. Air shadows in the pharynx overlying the mandible.

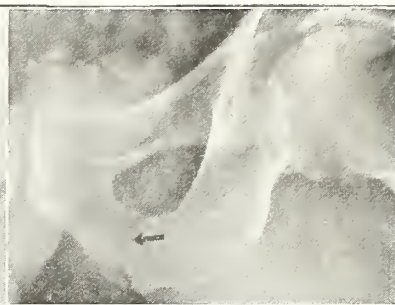


Fig. 14. Perineal skinfold overlying the pubic ramus.

process as well as the bodies of the lower cervical vertebrae may be overlapped by the posterior arches producing confusing linear shadows simulating transverse fracture lines.

B. Soft tissues overlapping bones.—The psoas muscle border crossing the transverse process of the lumbar vertebrae, intermuscular septa across the humerus are common examples as are the skin folds when they overlie the pubic ramus (Fig. 14) or toes. Air containing spaces in the body naturally appear as dark lines and when these shadows cross the bone outlines as when the pharynx shadow is projected across the mandible, (Fig. 13) nasal passages over facial bones or lung markings cross ribs they are misleading. Intestinal gas may lie over the pelvis, sacrum or coccyx and simulate a fracture, particularly in the latter instance. In any of the problems dealing with overlapping shadows one usually only has to be aware that such errors can occur in order to avoid them since usually the line continues out into the soft tissues beyond the bone, excluding a fracture.

C. Clothing and dressings may overshadow the bony parts and produce confusing shadows (Fig. 9).

IV. ACCESSORY BONES, DIVIDED BONES, UNUNITED EPIPHYSES, ETC.

A. Accessory Bones.—The examples shown (Fig. 15) of the os trigonum, os peroneum, tibiale externum and os Vesalianum are the commonest of the accessory bones in the foot. An accessory ossicle frequently seen at the upper anterior margin of the acetabulum is due to the persistence of the apophysis at this point (Fig. 16). A common sesamoid occurs in the lateral head of the gastrocnemius, the fabella and is readily seen in the lateral views of the knee (Fig. 26).

B. Congenital division of bones.—The bipartite patella (Fig. 17) is a common occurrence and is usually characteristic in appearance, with well formed cortical margins. It could hardly be diagnosed as a fracture providing the films were

sufficiently sharp. The division is usually in the upper outer quadrant though it may extend vertically through the lateral aspect. Other common examples are the ununited acromion process (Fig. 18), accessory articular processes of the spine (Fig. 19) and congenital failure of fusion of portions of the neural arches. The accessory articular pro-

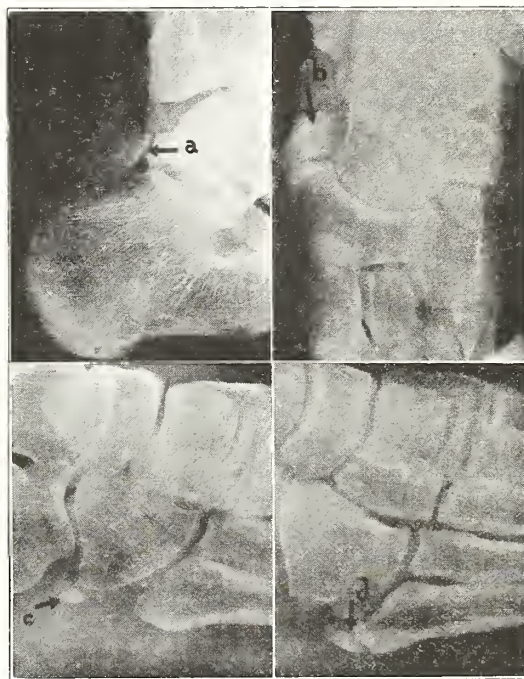


Fig. 15. (a) Os trigonum. (b) Os tibiale externum. It is unusually large in this example. (c) Os peroneum (double in this example). (d) Os vesalianum. In the developing skeleton this is the epiphysis at the base of the fifth metatarsal. When it persists as a separate bone it is called the os vesalianum.

cesses are common (2 per cent of all spines in our series show one or more of these ossicles) and seldom should be confused with divisions due to trauma. When these accessory ossicles are unilateral it will be noted that the total length over all, including the accessory process is greater than the corresponding articular process

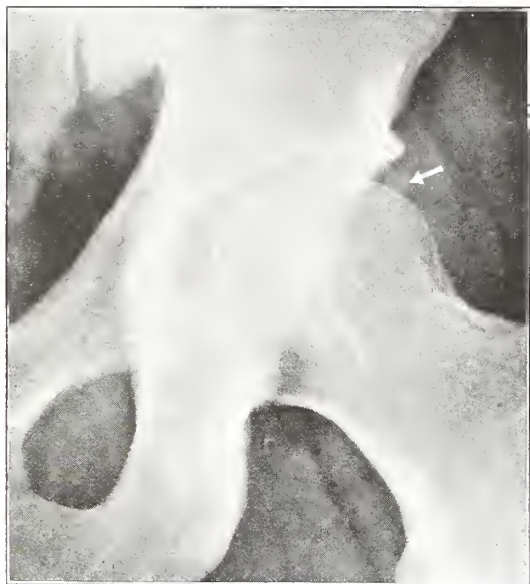


Fig. 16. A common accessory bone occurs at the upper anterior margin of the acetabulum.

of the opposite side and often there is a depression in the articular process of the vertebra below to accommodate the increased size caused by the accessory bone. The failures of fusion in the neural arch are chiefly of two types. One is the common spinabifida resulting from defects in fusion of the arch in the mid-line posteriorly (Fig. 20). It is commonest in the upper sacral segments, but can occur elsewhere in the spine. The second (Fig. 21) is the result of failure in fusion of the lamina close to the pedicle just below the superior articular process. When bilateral this defect is the precursor of spondylolisthesis. The divided transverse process of the first lumbar vertebra, called also a rudimentary rib (Fig. 22) is a very common variant (over 5 per cent of our series). It may be unilateral or bilateral; the lateral portion may be expanded (as shown on one side of the example) or the same width. Its differentiation from a fracture is based on three points: First, the presence of a smooth cortical margin; second, absence of the usual caudad displacement of the fractured fragment; third, the absence of fractured ribs above or fracture of other transverse processes below, the isolated fracture of a first lumbar transverse process alone being very, very rare. A division through the transverse process of the seventh cervical or the first thoracic vertebra (Fig. 25) is encountered, but less frequently. Persistence of the metopic suture which in the fetus divides the frontal bone in the mid-line is often seen. Less common are wormian bones and os incae which might be called accessory bones of the vault of the skull. In all the problems dealing with divided bones the differentiation usually hinges upon establishment of the line of division as either a

cartilage or a fracture line. This differentiation has been tabulated above.

V. CALCIFIED DEPOSITS

Calcified deposits may be very troublesome in that they mimic old or recent chip fractures.

A. Periarthritic deposits.—A common site is in the anterior spinous ligament of the cervical spine and supraspinous ligament (Fig. 23). The differentiation can usually be made in roentgenograms of sufficiently good detail since these deposits lack any bone detail which would be characteristic of fragments. They are amorphous in character as a rule. In addition the bone from which they have presumably been torn is seen to be intact and shows no defect in outline.

B. Calcification within cartilage.—In the costal cartilage these areas of calcification may be separated from the bone end by a line of diminished density which simulates a fracture line (Fig. 24). This is most confusing in the costal cartilage of the first rib although in the lower ribs a tiny point of calcification may appear to be "broken" from the rib end. Calcification in the trithecium cartilage, tiny nodules situated in the thyro-hyoid ligament are projected close to the spine in the lateral view of the cervical region and can simulate fragments fractured from the vertebral-bodies. The deposition of calcium in the cartilages of the larynx often throw confusing shadows over the cervical vertebrae in the antero-posterior view and while they could hardly be said to simulate a fracture, it is usually

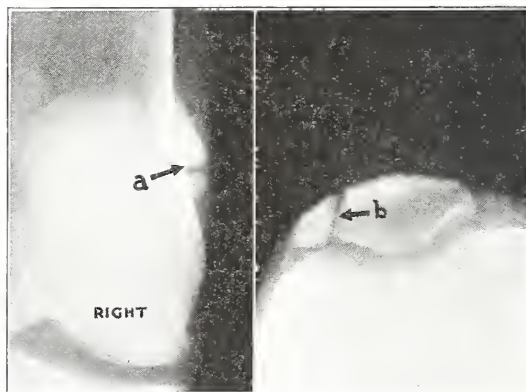


Fig. 17. (a) Bipartite patella. In this instance there is a transverse division through the divided portion of the patella. (b) Bipartite patella. This vertical view shows the congenital division in the patella.

valuable to have stereoscopic views to learn the exact significance of all the shadows seen in this projection.

C. Calcification in Ligaments, Bursae, Fat, Lymph Nodes, Veins and Arteries.—These areas of calcification are common and must not be confused with avulsion fractures. As described previously (see periarthritic deposits) one must de-



Fig. 18. Division through the acromion process readily demonstrated in a vertical view of the shoulder.



Fig. 19. Accessory articular processes in the lumbar spine (a) accessory superior articular process. (b) Accessory inferior articular process.



pend upon the amorphous character of the deposits, upon the occurrence of similar deposits elsewhere in the patient, and upon the fact that the main bone is intact. At the bony attachment of strong tendons these deposits are a common occurrence. (Fig. 26) viz: Os calcis, pubis, olecranon, patella. The common deposit in the supraspinatus tendon or sub-deltoid bursa can scarcely be confused with a fracture except in films of very poor quality (Fig. 27).

Calcification in veins (phleboliths) have a

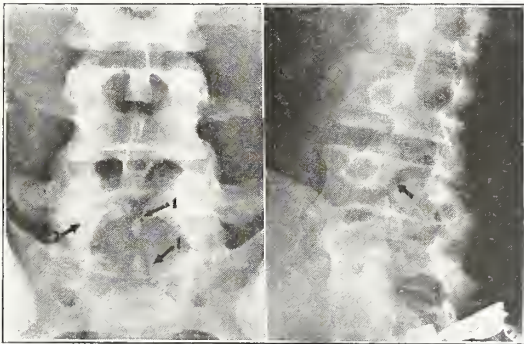


Fig. 20. (1) Failure in fusion of the posterior of the neural arch in the fifth lumbar and first sacral segments. (2) Upper margin of sacral articular process overlapping neural arch of 5th lumbar vertebra.

Fig. 21. Failure of fusion in the lamina close to the pedicle shown in an oblique view. This is associated, as is often the case, with spondylolisthesis.

spherical or oval configuration; in arteries the appearance is usually that of thin parallel lines which are wavy and not completely continuous; lymph node calcification and fat calcification is dense and has an irregular outline. When the calcifications in arteries, veins or lymph nodes do not lie close to bones they give rise to no confusion but when they are close to or overlies bone it may necessitate extra views to determine their true nature; again it must be emphasized

that the finest possible detail in the film is essential in these cases.

VI. ARTEFACTS

Crescentic dark shadows due to buckling the film in handling are common and occasionally are confusing. Scratching of films or pencil marks may result in dark lines which simulate cracks in the bone. When viewed by reflected light these



Fig. 22. (a) Congenital division through the transverse process of the first lumbar vertebra, called also rudimentary ribs.

artefacts are readily recognized. Defects in intensifying screens produce light spots in the film and could scarcely be mistaken for a fracture. Defects in the table top when a Potter-Bucky



Fig. 23. A calcified deposit in the anterior spinous ligament.

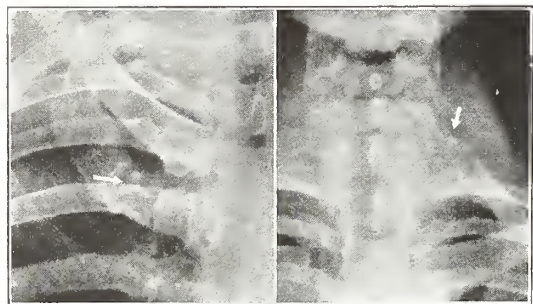


Fig. 24. A line of division between the rib end and calcification in the costal cartilage may simulate fracture.

Fig. 25. Congenital division through the transverse process of the first thoracic vertebra.

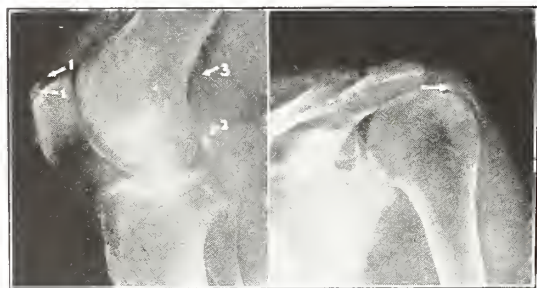


Fig. 26. Lateral view of the knee showing (1) calcified deposits on the anterior margin of the patella (2) the fabella, and (3) arterial calcification.

Fig. 27. A calcified deposit in the subdeltoid bursa may simulate a fracture from the tuberosity of the humerus if the quality of the film is inferior.

diaphragm is used have been described as producing artefacts simulating fracture lines.

SUMMARY

An attempt has been made to outline, describe and in some instances illustrate the confusing

roentgenographic findings which mimic bone injury due to trauma. A condensed outline follows:

I. Natural lines of diminished density. (Vascular grooves and canals and channels; suture lines; epiphyseal lines).

II. Natural lines of increased density. (Condensation in cortical bone; irregularities in cortical outline; variations in development).

III. Lines due to overlapping of structures. (Air passages, skin folds, muscle septa; bones, etc).

IV. Accessory bones, divided bones, ununited epiphyses.

V. Calcified deposits. (Near joints; in cartilage or ligaments; blood vessels, etc).

VI. Artefacts (Defects in films, intensifying screens, etc).

CONCLUSIONS

Roentgenographic detail is essential in all bone diagnostic work. It can be secured by a combination of the following technical factors: (1) Small focal spot tube. (2) Non-screen technic or detail screens properly mounted. (3) Use of cones or diaphragms and Potter-Bucky diaphragm when indicated. (4) Proper exposure and processing of films.

It is a good rule to make comparison views of the opposite side when examining the extremities in children and adults when an unusual problem arises. However, since absolute perfect symmetry is exceptional the comparison findings must not be slavishly relied upon in all instances.

Stereoscopic films are of definite value particularly in examination of the spine, skull, pelvis, chest and shoulder. Views of a part made in two planes at right angles to each other are the basic minimum for diagnosis; additional views at various angles are usually needed in doubtful cases.

There is, of course, no substitute for the thorough knowledge of the anatomy of the part being examined. This outline may be of value, however, in helping the physician avoid some of the more common sources of error.

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The Treatment of Pneumonia

JAMES M. RUEGSEGGER, M.D.

PNEUMONIA, according to most of the reliable vital statistics, kills more people than any other infectious disease. This statistical fact, plus the fact that many state boards of health are setting up pneumonia control departments, makes it apparent that present day medicine no longer considers pneumonia "the friend of the aged", but rather a menace to everyone. With the great increase in attention, both medical and lay, directed toward this disease, it has been at times difficult to evaluate the mass of results of clinical research of the various methods of therapy. It, therefore, seemed especially timely that this program of the May meeting of the American Medical Association presented a panel discussion¹ on pneumonia.

It is noteworthy that whatever treatment has been recommended during the past 25 years, early diagnosis has been of paramount importance. The typical or lobar pneumonias with their cardinal symptoms of chill, "stitch-like" pain, cough and rusty sputum can frequently be diagnosed by the history alone. If any three of these four symptoms should be noted, the diagnosis of pneumonia should be entertained until proved otherwise. The lobular and broncho-, or more aptly described as atypical, pneumonias are more likely to be less dramatic in onset and consequently less easily diagnosed. These pneumonias frequently follow upper respiratory infections; often, they are complications of major surgical procedures. In the aged, they do not infrequently occur as complications of the degenerative diseases. While the classical signs of consolidation may clinch the diagnosis, these signs frequently appear late in the disease. Since successful treatment of the pneumonias depends in such great measure on early treatment, the diagnosis should be made more frequently on the basis of history or by finding the crepitant râle in patients who have other signs of respiratory disease.

Etiological diagnosis rather than anatomical diagnosis has been responsible for the rapid strides made in pneumonia therapy. It is, therefore, important to determine the cause of each pneumonia by examining the pulmonary exudate or sputum in each case. Of the typical pneumonias, probably 95 per cent or more are caused by the pneumococcus. The causal relationship between the pneumococcus and the atypical pneumonia is less precisely known, but it is prob-

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able that the pneumococcus is the etiological agent responsible for the great majority of these pneumonias. Other organisms which may cause pneumonia are the streptococcus hemolyticus, Friedländer's bacillus, staphylococcus aureus, influenza bacillus and possibly a filtrable virus. Unfortunately, the pneumococcus is not a single organism, but rather a family comprising 32 or more types. Fortunately, from a diagnostic standpoint, it lends itself rather easily to identification by the relatively simple Neufeld laboratory method². Even in view of the present trend toward non-specific therapy, it is of more than academic interest to know the exact type of organism; every pneumonia sputum should, therefore, be searched for pneumococci or other pathogenic organisms.

Of the pneumococci, Types I, II, III, V, VII and VIII are the most frequent causes of adult pneumonia; in children, I, VI, XIV, and XIX are found most frequently.³ It sometimes may be very difficult to decide whether the pneumococcus found is the cause of disease or only a harmless inhabitant of the respiratory tree; this is especially true in the case of Type III and some of the "higher" types. In occasional instances, two or more types of pneumococci may be found. In such cases, culture of the lung "juice" or exudate as described by Bullowa may be the only certain method of proving the actual etiology of the disease. In case no pneumococcus is found, some attempt to identify the predominant flora should be made by cultural methods.

When possible, blood cultures should be taken on all patients with pneumonia. In occasional cases, this may be the only way of identifying the actual cause of the disease. For prognostic reasons as well as a guide to therapy, it is always important to know if the organism causing the pulmonary disease has invaded the blood stream.

GENERAL TREATMENT

Isolation: Pneumonia is a communicable disease. While difficult of proof, this thesis is sup-

¹Submitted December 15, 1939, at request of The Editor.

²From the Department of Medicine, University of Cincinnati College of Medicine and the Cincinnati General Hospital.

ported by the high incidence of multiple cases in families⁴, cross-infection of the same type on hospital wards and the occasional occurrence of epidemics. The patient with pneumonia should be attended only by people wearing gown and mask. Sputum should be burned; grossly contaminated articles may be cleaned with soap and water.

Nursing Care: Next to specific therapy, complete physical and mental rest is probably the most important factor in aiding the recovery of pneumonia patients. A full-time, competent and sympathetic nurse can do much toward conserving the patient's strength, anticipating his needs and reporting clinical changes which may shorten convalescence markedly. But nursing care is no longer the keystone of successful pneumonia therapy and is not a substitute for specific therapy. In lieu of trained nursing service it is occasionally possible to draft a member of the family to carry out minimal nursing functions. The question of hospitalization of the pneumonia patient requires a careful weighing of a number of factors which will vary with each individual case. In general, the advantages which a hospital offers not only in nursing care, but in diagnostic facilities as well, outweigh the disadvantages entailed in transporting a sick person to the hospital. If the patient cannot be taken to a hospital, the facilities of the laboratory and hospital must be taken to the patient if the patient is to receive the best modern medical treatment.

Fluids and Diet: The average adult patient with pneumonia will tolerate about 4000 cc. of fluids daily; fluids should be "forced" in frequent small amounts to avoid the possibility of precipitating vomiting. If the patient refuses or is unable to cooperate in the ingestion of fluids, a hypodermoclysis or venoclysis may be employed for the administration of fluids. In the modern treatment of pneumonia, diet is no longer of great import for the disease rarely runs a protracted course. As a rule, diet should consist of fluids such as fruit juices, milk drinks and soups; the caloric content of fluids may be amplified appreciably by the addition of lactose without making the drink disgustingly sweet. In the rare case when the sickness is protracted or when the patient is already malnourished, an effort should be made to amplify the diet with the vitamins (especially B) which are usually not present in large amounts in liquid diets.

Elimination: Distention of the urinary bladder is not a frequent finding in uncomplicated pneumonia. Careful daily examination and noting the record of the patient's output will usually avoid excessive distention of the bladder. Catheterization should be employed to relieve such distention. Constipation is frequent in patients with pneumonia. Early attempts at prevention

are the best methods of treatment. Fruit juices frequently are of great value. A bland daily enema is indicated if the patient does not have a daily bowel movement. Of great importance, but frequently forgotten, is the fact that many people have regular bowel habits which are ignored by the routine of a hospital or nursing service; if the patient is allowed to go to stool at regular intervals and helped to a sitting position, many cases of hospital constipation may be avoided.

Symptomatic Treatment: Mild sedatives such as the barbiturates will allay the apprehension and excitement which frequently accompany the typical pneumonias. An attempt should first be made to control pleural pain by mechanical means; a scultetus or many-tailed binder works very effectively for this purpose; adhesive tape should never be used. Intractable cough can usually be controlled by the judicious use of codeine. Abdominal distention may be very troublesome and responds poorly to the usual regime of pitresin and related drugs; the best treatment consists of its prevention by vigorous and early treatment of the pneumonia. Oxygen may be of benefit in treating the cyanosis, sustained tachycardia, tachypnea and delirium associated with pneumonia. Various methods of administration are possible, some of them very disconcerting to a sick person. Oxygen therapy may relieve the above symptoms dramatically; not infrequently oxygen administration becomes a fetish which is not only expensive, but laborious and very annoying to the patient. If it does not relieve the symptoms for which it was prescribed after several hours' trial, further administration does not seem indicated.

SPECIFIC TREATMENT

The specific therapy of the pneumonias embraces the practical application of two well-substantiated, rational approaches to the cure of bacterial diseases. Each has had a trial and has shown excellent results in effecting a great reduction in the mortality from pneumococcal pneumonias. Each has advantages as well as disadvantages and consequently will be discussed separately below.

Serum: Serum therapy attempts to produce, in a relatively short time, the same immunological picture in a patient ill with disease that would be present if that patient had recovered spontaneously from the disease. This is accomplished by the passive transfer of antibodies from an animal which has been immunized against the disease; in anti-pneumococcal serum therapy, horses and rabbits have been employed almost exclusively for this purpose. This method of treatment has been widely used for about 15 years and has been reported by almost all workers as

a very effective therapeutic agent in the treatment of the pneumococcal pneumonias; statistical results from various clinics showed that it has reduced the expected mortality of 25 to 40 per cent to an actual mortality of 5 to 15 per cent if given early in the course of the disease. (These figures are only approximate and vary considerably from one locality to another).

SERUM THERAPY

Successful serum therapy depends in great part on reliable and accurate "typing" or determination of the etiological agent. Serum is strictly type-specific and should not be given until the type of pneumococcus has been determined; polyvalent serum is rapidly being discarded as a wasteful and uncertain form of therapy. If the patient does not give a suspicious history or a positive test for serum sensitivity, serum may be given intravenously with little danger of untoward reactions; within the past few years, serums have been refined to the point that most of the reaction-producing factors have been removed. As far as possible, the total calculated dose of serum should be given at one injection, taking the usual precautions for intravenous therapy. Accurate calculation of dosage is not possible because of the many factors involved. For most of the types (Pn. II and III excepted), 100,000 units suffice in adults under 40 years of age if the patient has an early disease (less than four days), has a single lobe involved and is not bacteriemic. Older patients, multiple lobe involvement, bacteriemia, pregnancy and parturition and certain other obscure factors demand as much as twice as many units; the average basal dose for Pn. II and Pn. III pneumonias is probably as high as 200,000 units. The carbohydrate skin test⁵ and the slide agglutination test⁶ have been described for determining adequacy of dosage, but neither is reliable in the hands of untrained workers. The action of serum may be apparent in two to twelve hours as manifest by subjective improvement, lowering of the temperature and pulse rate or by the appearance of a classical crisis. If favorable change is not noted the blood culture shows growth, improvement may not be apparent and additional serum is imperative.

The advantages of serum are that it is given intravenously and consequently obviates any question of absorption; it produces its result relatively quickly; it detoxifies in the sense that a pneumonia patient is "toxic". Its disadvantages are of greater import in certain individual cases; it is strictly type-specific; it cannot be given to some people with serum sensitivity due to a natural sensitivity or previous administration of serum; it is relatively expensive; it may produce reactions in a small per cent of cases; severe serum sickness may follow in certain instances.

Chemotherapy: The chemotherapeutic approach to pneumonia represents a long search for a chemical or drug which would kill organisms within the human body and yet be relatively innocuous to human tissues. In 1935, there was introduced a dye⁷, sulfanilamide, which purported to meet these requirements for the organisms causing pneumonia. Its mode of action against organisms is still a moot question; in vitro, it probably has some bactericidal activity, but its bacteriostatic activity is even greater. Its mode of action within the body is not understood; it probably is effective by means of its bacteriostatic activity. Before the possibilities of sulfanilamide were thoroughly explored in pneumococcal disease, a more powerful sulfonamide, sulfapyridine⁸, had been introduced which at once was shown to be effective against pneumococcal pneumonia. It is not specific in its action, having a similar action against all types of pneumococci as well as streptococci and probably against certain other cocci.

It is a very poorly soluble, white, crystalline powder and is practically limited to oral therapy; recently its highly soluble sodium salt⁹ has been released for commercial distribution. The effectiveness of the drug depends on maintaining an optimal (probably 4 to 7 mgms. per cent) level in the blood. It, therefore, is given at regular intervals; in the average adult 2 grams (gr. XXX) at once and 1 gram (gr. XV) every four hours day and night usually yield this optimal blood level. Ideally, chemical determinations should be made, after 24 hours of therapy, to determine the level. The drug is unpredictably absorbed from the gastro-intestinal tract and the dosage may have to be increased to attain the desired level. Within the body, a certain portion of the drug is acetylated or inactivated; in some cases, excessive acetylation may account for the apparent failure. Frequently, patients have a critical drop in the temperature after 12 to 24 hours of drug therapy, but this is rarely accompanied by the clinical signs of a crisis. Best results are obtained by continuing the administration of the drug until the patient has had two full days of normal temperature (rectal); in our experience, the average dose has been 30 to 50 gms. in adults with pneumonia. When the drug cannot be forced by oral administration, the sodium salt may be given intravenously in 2 to 5 per cent solution; it is highly alkaline and demands the utmost care in administration lest perivascular injection occur.

CHEMOTHERAPY

The great dangers in chemotherapy concern its unpredictable, but troublesome side actions. It invariably causes nausea and/or vomiting which is caused by central stimulation, in part at least, and is not obviated by intravenous therapy. Cyanosis occurs in many patients following chemo-

therapy, but rarely is a troublesome feature and quickly disappears after discontinuing the drug. It may cause fever and occasionally rash; these are troublesome only to the physician who must make the differential diagnosis; they both appear after several days of therapy and disappear quickly when all of the drug is excreted. Hepatitis has been reported, but is probably rare. Hemolytic anemia may follow drug therapy. Leucopenia is more common and agranulocytosis has been observed. It is, therefore, very important to make careful, frequent red and white blood cell counts on patients under this form of therapy to detect early changes; the blood picture usually returns to normal when the drug is discontinued. Hematuria and nitrogen retention are known to occur, due to the precipitation of acetyl sulfapyridine crystals in the kidney; it has been suggested that this complication might be avoided if the urine is made alkaline by the oral administration of sodium bicarbonate. Safety demands the frequent examination of the urine for microscopic blood and the discontinuance of the drug after finding appreciable amounts of blood. Other signs of toxicity or idiosyncrasy to the drug have been found; it cannot be stressed too much that the drug is not without its dangerous actions and consequently patients receiving it should be under observation at frequent intervals.

In summary, the chemotherapeutic agent, sulfapyridine, presents these advantages: it is highly efficacious against most of the coccal pneumonias; it can be given by oral administration; it is relatively inexpensive. Its main disadvantage lies in its tendency to produce annoying and sometimes dangerous toxic effects. A further disadvantage is its uncertain absorption, excretion and acetylation. (The acetyl derivative is probably inactive).

CONCLUSIONS

The clinical and laboratory research of the past ten years have, in one sense, made the treatment of the pneumonias more complicated than formerly. Inasmuch as the newer methods of treatment have reduced the mortality of this group of diseases so markedly, it is almost imperative that these methods receive wider adoption. General methods of treatment remain acceptable and adaptable to almost all cases. Specific therapy attacks diseases in two different manners; both have been proved of great value and neither seems entitled to exclusive adoption. A combination of the two forms of therapy is neither theoretically nor practically unsound and should reduce further the mortality from the pneumonias. For economic and sometimes other reasons, combined therapy may not be possible; it is suggested then that chemotherapy be given a trial of 24 hours; if there is no improvement at the end of that time, and there has been estab-

lished a level of 4 mgms. per cent or more of the free drug in the blood stream, serum therapy should certainly be considered. In all methods, excellence of results has been determined in part by the institution of early treatment. Therefore, early diagnosis, clinical and etiological, is second in importance only to prompt specific treatment.

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The Vitamin B Deficiencies

On December 15th, Dr. Tom D. Spies, University of Cincinnati School of Medicine, lectured before the Cleveland Academy of Medicine on "The Vitamin B Deficiencies". Among new things pointed out by Dr. Spies were recent observations by himself and associates that the administration of large amounts of synthetic vitamin B₆ (2-methyl, 3 hydroxy, 4,5-di [hydroxymethyl] pyridine) produces a slight reticulocytosis in persons having either macrocytic anemia associated with pellagra or true pernicious anemia. This reticulocytosis does not reach a peak corresponding to that following the administration of liver extract to patients with pernicious anemia. In fact, the reticulocytosis rarely rises above five per cent. Where the white count was low, there was a striking increase in the polymorphonuclear cells following the administration of this vitamin. Dr. Spies also discussed the sedative effect of large amounts of vitamin B₆ (50 to 100 milligrams) when given either to normal persons or to persons with epilepsy and deficiency diseases. In their preliminary studies to date, it has been noted that persons with idiopathic epilepsy had a reduction in the number of seizures and, in some instances, they disappeared entirely. A single case with myotrophic lateral sclerosis has shown tremendous improvement in ability to walk and has had a return of appetite. His weight has increased as much as four pounds per week.

Treatment of Juvenile Adiposogenital Dystrophy With Anterior Pituitary Growth Complex

ANTHONY RUPPERSBERG, JR., M.D.

MUCH has been published to this date, in regards adiposogenital dystrophy (Frölich, 1901) of the adult and the adolescent patient, but we are unable to find notation of a thoroughly satisfactory type of treatment for the "Juvenile" type of this famous syndrome. This article, with report of a case treated successfully, may assist in the treatment of some otherwise hopeless patient, from the endocrine standpoint.

Today we recognize the (a) adult, (b) adolescent, and (c) juvenile forms of adiposogenital dystrophy. The diagnosis is made from the age of the patient, the history, a complete physical examination, and laboratory studies. After the diagnosis has been established, none of the forms of this syndrome requires care in selection of proper therapy, as does the juvenile form.

In all three forms of this pituitary hypofunction there is marked obesity which is pronounced about the region of the breasts, abdomen, mons pubis, the "pelvic girdle" and upper two-thirds of the thighs. Hypothyroidism is usually present, but gonadal hypoplasia is invariably marked.

While "pituitary therapy" is specific as a rule in all forms of this syndrome, it must be remembered that in any event, when treating the "juve-

The Author

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in disposition, had insomnia and cried on slightest provocation. She was delivered instrumentally and had had a linear fracture of the skull, without any localizing symptoms. While the birth weight of the patient was 5 pounds 7 ounces, at the age of 2 years, she gained 11 pounds in 7 months, and since then she had gained approximately 10 pounds per year. Dentition was delayed, appearing at 10 months of age. The mother stated that studies made previously were rather unsuccessful, but all definite laboratory reports were essentially normal.

Physical examination.—The patient was an extensively obese, white, fair-complected female child, rather slow in speech response, and of slightly irritable disposition. The obesity was generalized but exceptionally marked in the sub-

CHART No. I		CHART No. II	
Measurements taken on patient, Jan. 10, 1939.		Measurements taken on patient after six months treatment, with Growth Complex, Pituitary.	
Weight	85 lb.	Weight	62 lb.
Height	44 in.	Height	45½ in.
Chest	31 in.	Chest	25 in.
Abdomen	32 in.	Abdomen	25 in.
Symphysis - floor	21 in.	Symphysis - floor	21½ in.
Hips	35 in.	Hips	30 in.
Thigh	21 in.	Thigh	17½ in.
Knee	14 in.	Knee	13¼ in.
Calf	12¼ in.	Calf	11½ in.
Ankle	8¾ in.	Ankle	7 in.
Arm	10½ in.	Arm	9 in.
Wrist	5½ in.	Wrist	4¾ in.
Spread (arm)	42 in.	Spread	42½ in.
Dress (size)	12-14	Dress	7-8

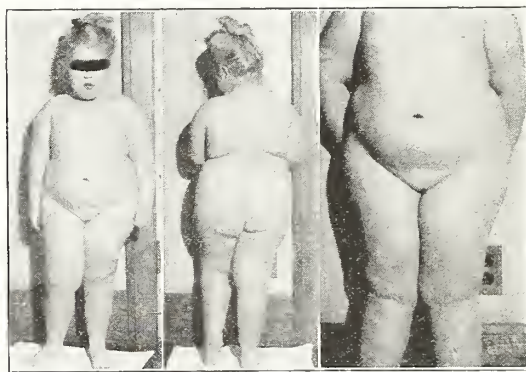


Fig. 1—Patient on January 10, 1939.

nile" form, gonadal (and genital) hypoplasia must remain unchanged under therapy. The gonadotropic factor which causes genital development must be avoided. Therefore, in our case we used pituitary "growth complex" by choice.

CASE REPORT

Patient N.K., aged 6½ years. The mother of the patient complained that the patient (a female) was overweight, irritable and irregular

mandibular, mammary, abdominal, pre-symphysis ("pelvic girdle") regions, and of the upper thighs. The skin was rather tense, delicate and without other irregularity (See Fig. 1). The fingers were tapering but the hands "chubby"; on January 10, 1939, her weight was 85 pounds, and her height 44 inches (See Chart No. I).

Laboratory Findings.—The basal metabolic rate was -10 (first test); X-ray of the sella turcica showed a normal formation, and there were no signs of persistent thymus gland. But

Submitted June 29, 1939.

the mastoid cells were well developed, and all eight carpal bones were developed "beyond the expectation for her age". Due to the extreme obesity a dextrose tolerance test was impossible after several attempts. A metabolic response to protein ingestion (Goldzeiher) was then tested; the result was 12 per cent increase (not allowing for emotional response). Urine estrin was 30/24 hours.

Diagnosis.—Considering the persistent gain in weight, (1) and the extreme obesity according to age and height, (2) the distribution of the

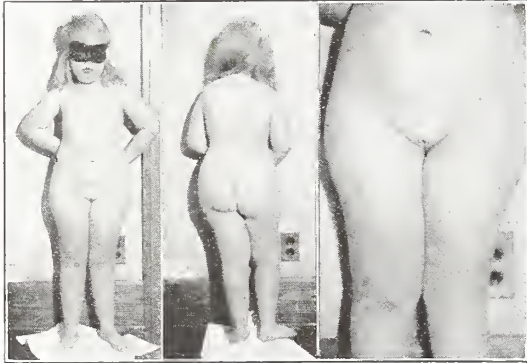


Fig. 2.—Patient after six months treatment.

obesity, (3) with the laboratory studies which were available, it was definitely concluded that the patient suffered from (a) hypopituitarism (the so-called juvenile form of adiposogenital dystrophia), (b) hypothyroidism, and (c) perhaps a resulting parathyroid imbalance.

Treatment.—(1) Diet. The patient was placed upon a diet consisting of a total 940 calories per day. (2) Thyroxin, .4 mg. and (3) anterior pituitary gland, extract 12 gr. per day (both by mouth) were given. In addition (4) she was given 1.0 cc. of growth complex (Ayerst, McKenna, Harrison No. 470) intramuscularly, three times a week.

This treatment was rigidly executed for approximately six months, periodically confirming progress by further tests which have been mentioned previously.

Progress.—On June 14, 1939, the patient had apparently lost considerable weight, and there was rather a redistribution of the residual obesity (See Fig. 2). Her speech response was much improved and her disposition markedly more pleasant. There was also a very marked change in the respective measurements of the patient (See Chart No. II) confirming the above-mentioned observations. The mother noted the improvement in activity both mental and muscular. Her actual weight had decreased 23 pounds while her height had increased a little more than 1½ inches in the six months of treatment. With all of this treatment there was no change in the ovarian function of the patient, according to observation of the mammae and external genitalia.

SUMMARY

A case of marked hypopituitarism (juvenile type of Frolich's syndrome) is reported, noting associated hypothyroidism and possibly a para-

thyroid gland imbalance. After a diagnosis has been established, in such a case, it is highly important to remember that any medication which might stimulate sex maturity should be avoided. For this reason any preparations containing the gonadotropic factor of the anterior pituitary gland cannot be used, but the "growth complex" may be employed with safety, since it contains a negligible amount of the factor.

Using this type of treatment, the patient gained 1½ inches in height, and was reduced 23 pounds in weight, with other notable improvements. This was over a period of six months of treatment.

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Chronic Gonorrhea

In the female this requires eternal vigilance as the proof of a cure is almost impossible. Many prominent gynecologists doubt if we can ever tell when a woman is well. Here, I believe sulfanilamide is going to be our sheet anchor. A few surgeons still do salpingectomies, and then turn the female out into society with a cervix full of gonococci. Coring of the cervix at the time with diathermy will often sterilize the infection in the cervical canal. In the male, patience on the part of the physician and more patience on the part of the infected person will finally eradicate the gonococcus. Above all things, employ gentleness in the treatment. In stubborn cases it may be necessary to obtain high dilatation of the urethral canal to insure free drainage of the vesicles, prostate and urethral glands. In some cases it may be necessary to do vasopuncture for injection of the seminal vesicles or dilatation of the vesicular ducts per urethral instrumentation. At times incision of prostatic ducts that drain poorly through a cystourethroscope will greatly facilitate drainage. Sclerosing injections of the infected prostate have been as yet too little used to give definite data as to end results. Let me reiterate: gentleness in treatment, mild solutions of antigonococides, and our results will be better. Teach the patient as you progress with his case both as to inspection of urine and study of his slides under the microscope. You will be agreeably surprised how closely male patients will co-operate when they know the end to which you are striving, namely, the elimination of all cocci and pus cells from the urinary tract. Only by the most painstaking and sincere effort both on the part of the physician and the patient can the disease be eradicated.—Warren W. Hewins, M.D., Evansville, Ind.; Jour. of the Indiana State Med. Assn., Vol. 32, No. 2, February, 1939.

Children are more likely to imitate the deeds rather than to obey the "don'ts" of their parents.—Fetterman.

Diagnosis and Treatment of Nasal Polyp

E. R. HARGETT, M.D.

THOROUGH nasal shrinkage is the most important step in the diagnosis of the nasal polyp. A small cotton pack moistened with a one-half of one per cent cocaine hydrochloride solution is probably the most satisfactory. This is first placed along the most prominent part of the lower turbinate with a small knee forceps. After two or three minutes, shrinkage will be in progress, and the pack can be moved in successive stages to the upper and posterior portions of the nose. If shrinkage is still incomplete, the prominent areas can be touched with a cotton tipped probe moistened with epinphrin, although this chemical produces much more after-congestion and discomfort than the cocaine alone. Some examiners spray the cocaine solution in the nostril, although this is not quite so ideal as the moist pack method. The benzedrine inhaler is useful for shrinkage in patients who object to the packs. Smears should now be taken. A point suction is then used in clearing any mucous accumulations.

DIAGNOSIS

The nasal membrane will now be seen, if not markedly diseased, varying in color from that of the patient's hard palate to that of the lip, depending on factors whose discussion is beyond the scope of this paper. The degree of aeration to which the membrane under scrutiny has lately been exposed plays a part in determining its color shade. This should be recorded for the various areas by comparison with a hemoglobin chart¹. In any event a polyp will be lighter in appearance, to white, in comparison to its surrounding parts. Nothing drains from a polyp when it is punctured, incised, or multiply incised, as from an edematous leg. It is a permanent structure unless removed surgically, as are other neoplasms. The literature is conflicting as regards the effects of high voltage roentgen therapy or radium on polyps, but most observers feel that such treatment has no effect other than to retard their growth, and in selected cases to prevent their recurrence. The polyp can grow to such size as to present in the external nares, or the pharynx, and exert such pressures as to enlarge the bony structure of the external nose, and all without any signs, other than the polyp itself, of any inflammation being present in the nose at the time of examination.

Skilern² quotes numerous authors as to the nature and etiology of nasal polyps and then states that the problem is not completely solved.

The Author

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He then states that the nasal polyp is true nasofibroma. Uffenorde³ states, "Polyps have no relations per se to infection," and so does not believe they have an infectious origin. Hajek⁴ states that they develop most frequently in the middle meatus because of the "peculiar loose condition of the muco-periosteal tissue covering the ethmoid bone". Grumwald⁵ states that chronic infection necessarily precedes nasal polypi; Skilern² says that the polyp may follow as a result of an irritating discharge flowing over that particular portion of mucous membrane from an infection elsewhere in the nose, and not the infection of that mucous membrane itself.

Turner⁶ states that "Any condition of hyperaemia or inflammation within the nose may give rise to polypus formation. Polypi may accompany——allergic conditions." All rhinologic writers on nasal polyps mention the terms hyperplasia or hypertrophy somewhere in the discussion, applying these terms to the masses. No one states clearly the fact that a polyp contains fibrous connective tissue cells other than those that existed in its basal membrane or starting point, and that these masses became such through the proliferation of these connective tissue cells, and their hyaline degeneration. Ewing⁷ states that "it is impossible to draw a sharp line between the products of chronic inflammation and tumor processes". Boyd⁸ states "the term polypoid must not be taken to indicate a pathological entity, for polypoid masses may be either neoplastic or inflammatory in nature".

Lack states⁹ "the production of nasal polyps is dependent on disease and irritation of the underlying bone, in the form of a rarefying osteitis or sclerosis". It is well known that bone in other parts of the body reacts to chronic infection and chronic irritation in the same way, without the presence or production of polyps. Woakes¹⁰ made the observation that "polyps are associated with necrosing ethmoiditis, and underlying bone disturbances". Boyd⁸ says "Regeneration occurs even more readily in connective tissue than in epithelium. Shortly after injury these

cells commence to proliferate. Division occurs, and the new cells put forth branching processes”.

The latest cancer research shows that abnormal growth stimulation takes place in normal cells exposed to the secretory products of injured cells, when the injury to the latter is prolonged, and not severe enough to cause the death of the latter. The mode of action is a natural one, beginning with the universal law of healing, “proliferation in the presence of injury”. But this stimulation to mitosis from injured cells does not stop, as in clean wounds, but goes on and on. The neighborhood cells are chronically subject to injury not sufficient to cause their death and development of definite cellular end-products, but continue to throw out that stimulant to mitosis in the same manner, giving the other cells in the vicinity no rest; and sometimes, finally, as in the case of the spirochete and neosalvarsan, developing a generation of cells that has lost some of its former characteristics. In the case of the malignant neoplasm then, the factor inhibiting mitosis is bred out. I call attention to instances in which polyps have become malignant, as cited by Goldman¹¹ and others.

After shrinking the nose, one tries to decide whether a given area is polypoid, or merely beginning hypertrophy of a polypoid nature, or a true polyp. I believe that this distinction should only be made for operative purposes. Whatever the size of the polypoid hypertrophy, the conservative treatment is the same, the post-operative treatment is the same, and the preparation for surgical removal is the same. This consists in finding and eliminating the cause of the irritation producing the enlargement. The referring physician can be of material assistance to the rhinologist in this search by taking smears from the middle meatus, or from mucous globules, applying Wright's stain, and looking over the whole slide for eosinophiles. If cells are seen in groups or if their number exceeds 10 per cent of the total number of white blood corpuscles seen on the slide, one has an almost certain indication that allergy is involved in the etiological irritation. The referring physician may be in a better position than the rhinologist to eliminate allergic factors. He may know the family history; he may have observed other allergic manifestations. He knows the environment of the patient. He may know the reaction of the patient to seasons, vacation, foods, change of residence, and sleeping habits. All these things are important factors as question leaders in determining the offending protein before actually beginning skin tests.

Extrinsic allergy is important. But most rhinologists will agree that chronic sinusitis, especially chronic ethmoiditis, mixed with or superimposed upon an allergic rhinitis, is the

most common irritating factor in the development of the nasal polyp. So I believe that roentgenograms should be taken of the sinuses of all patients with polyps, in order to determine if sinus disease is the irritating cause, and also if any hidden polyps exist in the sinuses themselves.

Surgical removal of polyps is often more difficult than is generally supposed. Frequently a preliminary submucous resection must be done before proper exposure is obtained, and the base can be accurately snared. Many of these growths in the middle meatus, or on the middle turbinate, have no pedunculated base, and must be removed with the biting forceps, or by the method I have recommended for the removal of nasopharyngeal and other posterior polyps.¹² In the removal of this middle meatus or middle turbinate type polyp the same care should be taken as regards surgical landmarks and safety measures as is taken in an ethmoidectomy. The surgical principle of preserving as much of the nasal mucous membrane should be constantly kept in mind. A polypoid middle turbinate in the presence of chronic ethmoiditis almost invariably means that some ethmoid cells are also present in the tip and along the edge of the turbinate itself. Only the most careful and skillful operators can save any of the anterior half or such a turbinate in doing the combination polypectomy-ethmoidectomy. The technic is to make an incision down the middle of the lower edge of the turbinate, and elevate the mucous membrane away for the edge, around and up on the septal side of the turbinate past the bulb. Then when the ethmoid labyrinth is removed this piece of membrane can be curled up around the base of the attachment of the turbinate, also helping to cover the ethmoid fossa.

TREATMENT

The only practical treatment of the fully developed polyp is surgical removal. Isolated cases have been reported in which the growth has disappeared under roentgen ray treatment, and after the elimination of the allergic substance if such has been present. Some cases have been noted of spontaneous resolution of the mass; these may be explained as an unconscious elimination of the allergic factor by a change in the patient's environment or intake, with the rare coincidental polyp resolution as stated above.

However, if there is only a polypoid tendency in a particular mucosal area, or if the hyperplasia has not become large enough to be of surgical importance, attention to the allergic problem may be all that is needed to restore the mucosa to normal. Similarly, it may be thought that if a non-allergic sinusitis is the irritating factor, the polypoid base may disappear under thorough conservative treatment to the sinusitis. Unfortunately, this has not taken place with any practical frequency in actual practice.

Many rhinologists remove polyps in their offices. I do not recommend this except in the case of allergic polyps. If the polyp is accompanied by non-allergic sinusitis, plans should have been made to surgically correct such sinusitis at the time of the polypectomy. Operative procedures on the sinuses are classed as major surgery, and as such should take place in an accredited hospital.

To summarize, I recommend thorough shrinkage of the nose, with detailed examination of the posterior half and of the nasopharynx; a slide and other procedures necessary to determine the etiological factors in every case; elimination of the factor at the time of polypectomy.

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Serodiagnosis of Syphilis

Occasionally a laboratory may render a false negative or a false positive report due to: (1) laboratory error, (2) technical error, (3) biologic error, or (4) clerical error. By laboratory error is meant the mechanical error which includes: switching specimens, mislabeling specimens, pipetting a serum into the wrong tube, etc. A technical error is one due to the limitations of the test itself or to the incorrect preparation and adjustment of the reagents. A biologic error is a positive reaction obtained in conditions other than syphilis. There are very few diseases which will give false positive reactions with all tests. Multiple tests are of great value in ruling out these biologic false positives. The clerical error is self explanatory.

There may still be some serologists who are of the opinion that this test or that test is the best and the only test, but if there are, they certainly are in error. There is not a single technic which embodies every requirement which the "best" and the "only" test should possess.

The efficiency of serodiagnostic tests in the

various stages of syphilis may be briefly summarized as follows: In primary syphilis the present day serologic tests are unfortunately not more than 40 to 50 per cent efficient in the first week after the appearance of the chancre. However, the darkfield examination which constitutes the most reliable procedure in early primary syphilis should be used routinely in every suspected lesion. No one lacking extensive practical experience should be permitted to make this type of examination. A single negative, or even repeated negative dark fields do not exclude syphilis. A serologic followup for three months should be instituted after at least three consecutive dark-field examinations have been negative. In untreated secondary syphilis, the sensitivity of serologic tests is highest, probably 100 per cent; therefore, a negative report from a reliable laboratory may practically be interpreted as ruling out syphilis. Nevertheless, it should always be remembered that a negative result never absolutely excludes syphilis, regardless of technic or technician. In latent syphilis an efficient test can be of great assistance to the physician in establishing the correct diagnosis because "at any given moment at least one-third of all patients with syphilitic infection are in the stage of latency" (Moore). In late syphilis of the tertiary type the agreement by reliable tests is surprisingly high and uniform; and while in neurosyphilis the agreement is not quite as striking, yet a large percent of them are detected by the better technics. In prenatal and congenital syphilis efficient tests are of particular value, for in the words of Moore, "in many pregnant women there is complete absence of clinical evidence of infection."

CONCLUSIONS

In conclusion it should be said:

(1) That present day serologic tests are far more efficient both from the standpoint of sensitivity and specificity than those which were in use fifteen years ago.

(2) That serodiagnostic tests for syphilis are of great value to the physician as an aid in the diagnosis of syphilis, but that the laboratory never can make a diagnosis for him.

(3) That while close cooperation between the serologist and the physician is very desirable, the former should strictly confine himself to reporting the results without expressing an opinion from the findings as to the probable presence or absence of infection.

(4) That if the present campaign to eradicate syphilis is to prove successful, the physician's "low index of suspicion" (Stokes) of the actual existence of syphilis in his own practice must be raised.—L. Y. Mazzini, Indianapolis, Ind.; *Jour. of the Ind. State Med. Assn.*, Vol. 32, No. 2, February, 1939.

A Successful Case of Hypodermic Hyposensitization to Wheat

SAMUEL R. ZOSS, M.D.

THE literature dealing with hyposensitization to wheat by injection, is both meager and limited. However it would be interesting to note the reports of various allergists as to their success with this method of treatment of wheat-sensitive patients.

Walker, as early as 1917, reported poor results with this type of treatment. Unger, in 1923, reported some help in a middle aged woman, supplemented by gradual feeding. Walzer, in his section of "Asthma and Hay Fever in Theory and Practice," concludes: "Hyposensitization may be attempted if complete avoidance of offenders cannot be attained. Results are at times favorable, but are more apt to fail where there is exposure to concentrated amounts of atopens (cereals) as is frequently the case with bakers."

Rowe, in his recent book, "Clinical Allergy," mentions that his results are disappointing. He says, however, that some increased tolerance has been established in several cases, which has allowed the patient to be slightly exposed to wheat flour dust or to occasionally ingested small amounts of wheat products without symptoms.

Other allergists are in true accord with the uniformly bad results obtained by the hypodermic method of wheat hyposensitization. To me it seemed a value, therefore, to report a successful case of hyposensitization to wheat by subcutaneous injections.

CASE REPORT

Mr. G. S., a white, adult male, age 33, came to me on March 3, 1937, complaining of severe asthma of 10 years duration. He explained that he was only affected when he contacted wheat flour dust in his occupation as a baker. This difficulty brought him to the point where he was ready to give up his business.

Physical examination revealed nothing of importance except for a slight emphysema of the chest. Skin tests brought out many inhalant and ingestant reactions, among which wheat gave a good positive scratch test.

I explained the discouraging results others have obtained, but he was willing to try the injections to wheat. He was placed on a wheat-free diet, which also eliminated other positive foods and the hyposensitization was begun. He was told to use hired help in his bakery as much as possible while under this series of injections. Since the intradermal test to wheat 1-1,000,000 was negative he was started on 0.05 cc. of wheat extract 1-100,000,000 for the sake of safety. He was then gradually brought up to 0.05 cc. of concentrated wheat extract. During the earlier

The Author

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period of his hyposensitization, on exposure to wheat dust, he produced frequent attacks of asthma. As he neared 1-100 dilution, he could eat wheat and stay in his bakery for a few hours at a time without trouble. After he had been on 0.05 cc. of concentrated wheat extract for a month, he could spend from 12 to 14 hours in his bakery contacting wheat dust with impunity. The patient remained free of asthma on weekly injections for five months and he was advised to discontinue treatment for a six month period as a trial experiment. After six months he began to experience a return of the asthma and was started once more on his wheat injections. Again, his asthma seems to be controlled by the higher concentrations of wheat, and I expect to maintain him on a concentrated extract for at least three years.

CONCLUSIONS

1. I have presented a successful case of hyposensitization to wheat by injection.
2. According to most allergists results have been discouraging and disappointing with this method of treatment.
3. Hypodermic hyposensitization to wheat can probably be used most effectively in selected patients who combine the ingestant and inhalant manifestations to wheat.

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A Correction

Through an error in revising biographical sketch of the author, Dr. Walter Heymann, whose paper appeared on page 40 of the January issue of *The Journal*, an entire line of type was dropped. The sketch should read:

Dr. Heymann, Cleveland, Ohio, is a graduate of the University of Kiel, Germany, 1923; member, Society for Experimental Biology and Medicine, American Association for the Advancement of Science, Sigma Xi; certified by American Board of Pediatrics; associate pediatricist, Babies and Children's Hospital, Cleveland; assistant clinical professor of pediatrics, Western Reserve University School of Medicine.

Arachnodactyly: Report of a Case Complicating Pregnancy at Term

WILLIAM BENNETT BEAN, M.D. and JOHN G. FLEMING, M.D.

ARACHNODACTYLY (spider fingers) is a congenital defect in the mesodermal tissues of the body giving rise to a number of characteristic abnormalities and structural deformities. The condition was first described by Marfan¹ in 1896 but only within the last few years have there been many case reports in American medical literature. Altogether there have been about 150 cases recorded. Comprehensive reviews of arachnodactyly, stressing particularly the ocular lesions, have been written recently by Lloyd² and Burch.³ In 1937 the work of Passow in Europe was summarized in the report of Pino, Cooper and Van Wien⁴ in which are compared the many similar lesions found in arachnodactyly and status dysraphicus. Status dysraphicus is a condition practically unknown in this country. It is related to, if not identical with, syringomyelia. In Table I are listed the most commonly associated structural faults of the two conditions as reported in various articles from the literature. The purpose of this paper is to report a case of classical arachnodactyly complicating pregnancy at term, and some related anomalies occurring in the same family.

The manifold variations and diversity of forms in which arachnodactyly appears have led its victims to seek aid from almost all medical specialties. The very obvious physical deformities of these patients make the diagnosis easy when the condition is known. Striking photographs in many of the case reports show clearly the unusual appearance of victims of this condition. In brief, the syndrome is hereditary and familial, though sporadic cases are recorded. The factor may be transmitted by either parent (Burch). Different stigmata may occur singly or in any combination. A parent with ocular manifestations may transmit the tendency for mesodermal deficiency which affects the bone or viscera of an offspring, or the child may have ocular lesions while the parent has the skeletal changes. Cases may be found with only moderate deformity or they may have many extreme changes.

The clinical picture may reveal any of a great variety of faults in body structure. A typical case presents a thin, cadaverous appearance, sharp prominence of the bones, and conspicuous deficiency of fat and subcutaneous tissue (Fig. 1).

Submitted August 19, 1939.

The authors are indebted to Dr. Raymond J. Gray for the ophthalmological studies, to Dr. Harold J. Reineke and Dr. Hyman Senturia for the X-ray studies, and to Dr. Josef Warkany of the pediatric service for examining the child.

The Authors

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● Dr. Fleming, Cincinnati, Ohio, is a graduate of Harvard University Medical School, 1934; member Cincinnati Obstetrical Society; junior in obstetrics, Christ and Deaconess Hospitals; associate attending obstetrician, Bethesda and Good Samaritan Hospitals, Cincinnati; assistant clinician, O.P.D. in Obstetrics, General Hospital and University of Cincinnati College of Medicine.

Height is usually greater than normal and the span of the outstretched arms is longer than the height. This may be an artefact in some cases

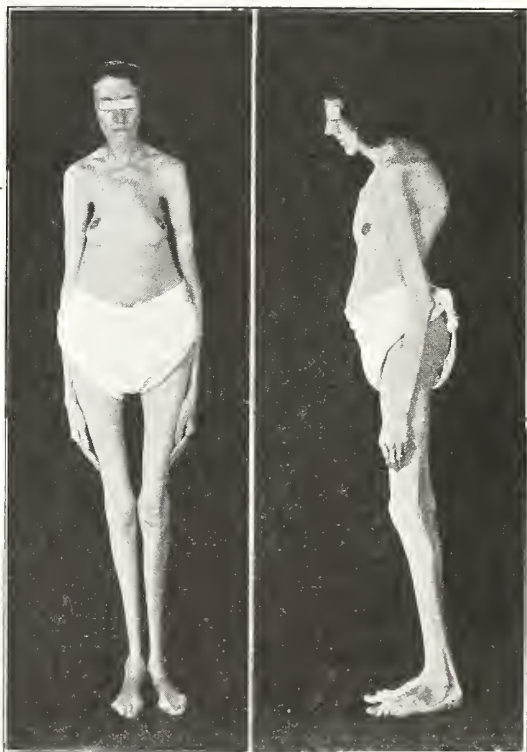


Fig. 1. Front and side views of the patient showing (1) thin tapering limbs, (2) disproportionately long arms and hands, (3) scanty subcutaneous tissue, (4) external strabismus, and (5) bony deformities.

TABLE I

Table I. A comparison of the most frequently observed abnormalities in the two conditions as reported in various articles in the literature.

	Arach-nodactyly	Status Dysraphicus
SKELETAL	Relative increase in the span over height.....	+
	Skull—Dolichocephalus.....	+
	Bosses.....	○
	Chest—Funnel deformity.....	+
	Pigeon breast.....	+
	Spine—Kyphosis.....	+
	Lordosis.....	+
	Scoliosis.....	+
	Spina bifida.....	+
	Winged scapulae.....	+
	Long, thin, tapering limbs and digits.....	+
	Webbed fingers.....	+
	Hyperflexible joints with occasional deformity and contractures.....	+
	Curved or deformed fingers.....	+
	High arched or cleft palate.....	+
	Calcaneal spurs; flat feet.....	+
EYE	Congenital dislocation of the lens.....	+
	Cataracts.....	+
	Iridodonesis.....	+
	Poor response to mydriatics.....	○
	Heterochromia iridis.....	+
	Horner's syndrome.....	○
VISCERAL	Congenital heart lesions.....	+
	Pulmonary anomalies.....	○
	Blood vessel anomalies.....	○
	Acrocyanosis; low blood pressure.....	+
MISCELLANEOUS	Absence of fat and subcutaneous tissue.....	+
	Underweight.....	○
	Hypotrophic muscles of good strength and normal electrical reaction.....	(weak)
	Asymmetry of breasts and uneven pigmentation.....	○
	Lack of development of secondary sex characteristics.....	+
	Deformities of external ear.....	+
	Hereditary and familial nature.....	+

because of decrease in measurable stature due to spinal curvature. Many different skeletal deformities develop in the older cases where the scanty ligamentous and muscular support have proved inadequate for stability of the bony framework. Joints, especially of the hands and feet, are remarkably pliable but this hyperflexibility may later be superseded by contractures. From the long sinuous fingers, resembling as they do a spider, the name arachnodactyly (spider fingers) is derived (Fig. 2). The toes and arches of the feet are cramped and out of normal alignment (Fig. 2). The bones, however, have no organic defect of structure with the exception of spina bifida, cranial bosses, or calcaneal spurs.

Visceral lesions affect many organs. Congenital heart defects have been reported in at least half of the cases. Peripheral arterial anomalies occur; acrocyanosis and cold extremities are frequent. A tendency to low arterial blood pressure emphasizes the general asthenic habitus of these individuals. In the two autopsied cases reported in the literature (See Pino, et al), the lungs had atypical lobe formation; it is known that these patients are particularly liable to pulmonary disease. Ocular lesions are very frequent though it



Fig. II. Arm and hand of the patient (left) compared with that of a normal woman of the same age, demonstrating the lack of subcutaneous tissue and spider fingers. On the right the skin lesions of the feet and the deformities of the narrow toes are seen.

may be the reported prevalence of displaced lens is too great because so many of the cases have come from ophthalmologists. In addition to ectopia lentis the pupils may be refractory to mydriatics. Tremulousness of the iris (iridodonesis) and cataracts may be encountered. A number of other anomalies are reported,

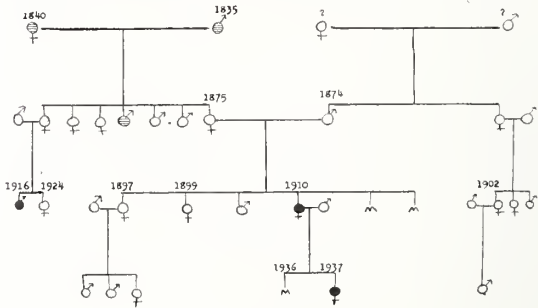


Fig. III. Family tree of the patient. The solid circles are individuals with gross deformities although the patient in this report (born in 1910) is the only one with unequivocal evidence of arachnodactyly. The shaded circles represent those with unusual height and thinness, or less well authenticated deformities. The letter M indicates miscarriages.

the most frequent of which are included in Table I. These pariahs of nature seem to be able to lead a normal life in many cases, and mental capacity is unimpaired in most instances. As

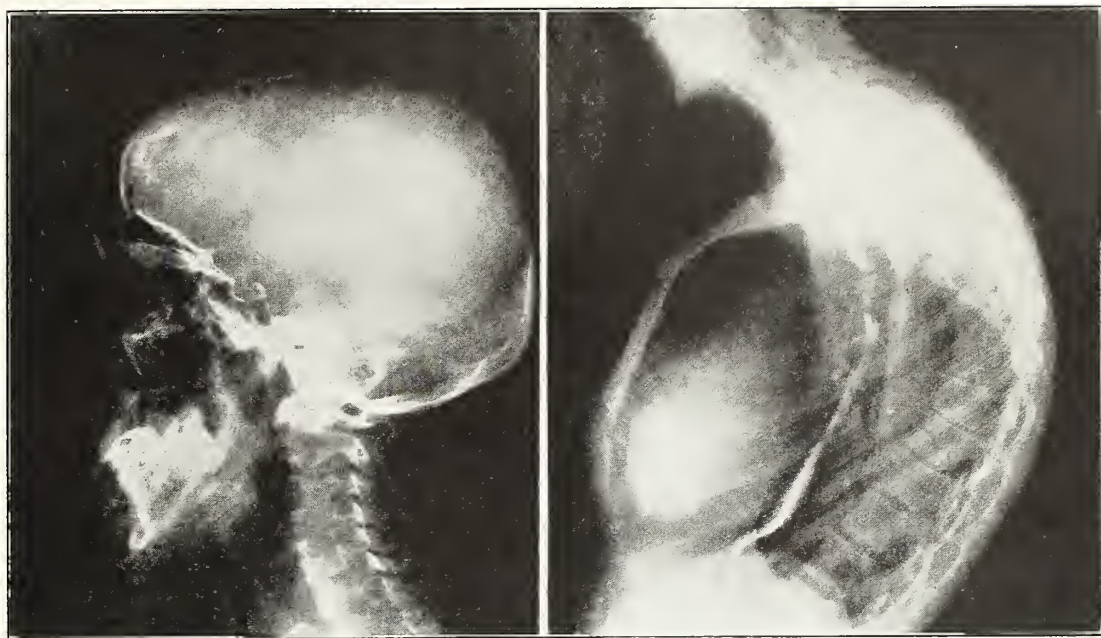


Fig. IV. The skull is normal except for enlarged sinuses and very thin bone. The sella is normal. The X-ray on the right shows the vertebral and thoracic deformity.

freaks they have focused upon themselves much unwanted attention. Some of the victims of the disease capitalize their monstrosities and gravitate to the freak collections of the circus and side show where they are on display as the "living skeleton" or the "thin man". The condition is not incompatible with long life though the liability to pulmonary disease and cardiac complications makes living more hazardous than in the case of normal individuals.

REPORT OF A CASE

The patient, a 27-year-old white para 0, gravida ii, at term, was admitted to the obstetrical service on Aug. 21, 1937, having been in labor for 12 hours. Examination revealed a tall, stooped, markedly thin patient with numerous structural deformities which will be described later. The lungs were clear and the heart sounds normal. The vertex was presenting, LOA, unengaged, and over-riding the symphysis pubis. The fetal heart sounds were of good quality. External measurements were: I.S. 26 cm., I.C. 27 cm., Ex.C. 19 cm., and I.T. 11 cm. There was a slight bloody show. On rectal examination the cervix could not be identified, and the fetal head did not enter the inlet, even with supra-pubic pressure. X-ray examination revealed an adequate maternal inlet and bony birth canal. Sterile vaginal examination revealed a tense, fixed, non-tender, fluid-like mass filling the entire right posterior portion of the pelvis, extending well anterior to the ischial spines. Laterally the mass was fixed to the pelvis on the right, and extended just beyond the ischial spine on the left. The cervix was anterior, behind the symphysis, and to the left of the mid-line. It was soft and not taken-up, the external os admitting a finger to the intact membranes.

A diagnosis of cephalo-pelvic disproportion due

to a pelvic tumor, possibly a prolapsed ovarian cyst, was made and caesarean section decided upon. Under general anesthesia, the abdomen was opened and the uterus found rotated to the left, with the lower segment displaced in the same direction. A low classical incision was made, the infant delivered by breech extraction, the placenta and membranes removed intact, and the uterus closed in layers. With the uterus held forward and to the left, a large rounded retro-peritoneal cyst was found filling the right posterior portion of the pelvis to the level of the sacral promontory. The thin, dark, reddish-blue wall was incised superiorly, and approximately 1,000 cc. of clear fluid removed. The inner lining of the cyst wall was pearly white with a bluish tinge, attached to the sacral vertebrae and appearing to be continuous with an enlarged right foramen of the second sacral vertebra. On digital examination, the foramen easily admitted two fingers to the inner vertebral space of the second and first sacral vertebrae. Attachment to adjacent structures—the right broad ligament, pouch of Douglas, mid-rectum and lower sigmoid—was firm. Biopsy was taken and the cyst closed. Emptying of the cyst was not associated with any change in blood pressure, pulse or respirations. The tubes were sterilized, and the abdomen closed in layers. The patient reacted well.

Convalescence was uneventful except for a mild morbidity reaction. Vaginal examination on the 16th day post-operative revealed that the cyst had refilled to its original size. The patient was transferred to the medical service for further study.

An unusually complete record of the patient's immediate ancestry was available in the form of pictures in the family album and her own information (Fig. 3). The paternal grandparents, both normal in every way, were born in Germany and came to this country as adults. The maternal grandmother, born in Germany in 1840, was de-

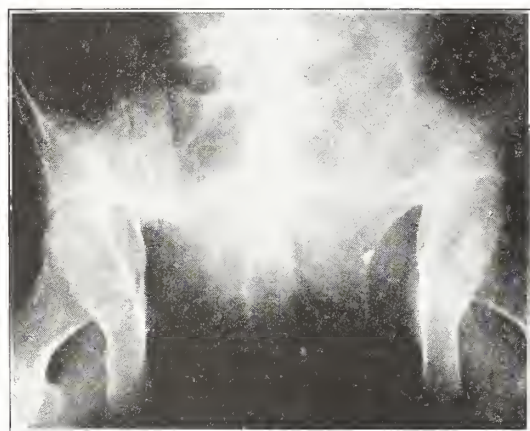
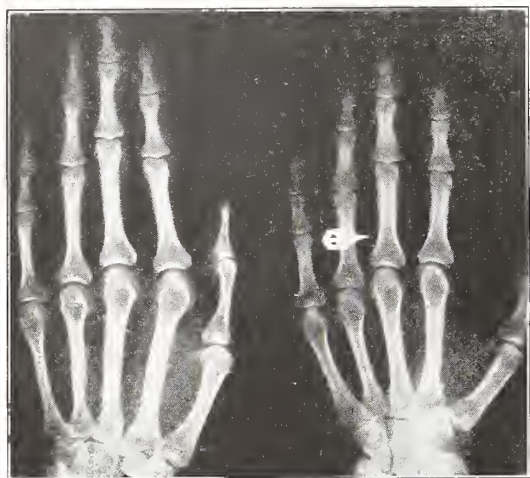


Fig. V. X-ray of the hand of the patient (left) compared with that of a normal woman of the same age. The great increase in the length of the bones is seen. Below is an X-ray of the pelvis showing the very large openings of the foramina in the anterior of the sacrum at the level of the second sacral vertebra. Abnormal sacralization of the lumbar vertebrae is also seen.

scribed as "thin, tall and gaunt", though not otherwise remarkable. She died at the age of 84, of a stroke. The maternal grandfather, born in France, was also described as thin and gaunt. He died of old age at 86. It is not known that any of the grandparents had the stigmata of arachnodactyly but the extreme thinness may indicate that the trait was carried on the maternal side. The mother and father apparently were normal individuals. The mother was quite thin in her early life but weighed 184 pounds when she died of hemiplegia at the age of 52. The father is living and well at the present time. Three siblings, quite normal, are all living and well. There was no instance of consanguinity in the family. A first cousin of the case reported here is a victim of many congenital deformities and may well have arachnodactyly or status dysraphicus. It has not been possible to examine this man as the family are quite sensitive about him. He has some spinal deformity, probably spina bifida, a genital anomaly, is incontinent and feeble minded. An uncle on the maternal side had some deformity. He died at

an early age and may have had some stigmata of the disease. The family tree is seen in Fig. 3.

The past history of the patient reveals that her birth was normal though she was premature by about two months. Infancy progressed uneventfully and she walked and talked at the usual age. Dentition was normal. As a young child she was taller and thinner than companions of her own age, but this was not particularly noticeable until she went to school. During her eighth year she grew very rapidly. At this time she first noticed trouble with her eyes and a right external strabismus developed. Vision in her right eye has become worse gradually. In 1918 she had two attacks of influenza during the epidemic, but recovered uneventfully. She also had measles and whooping cough during this year. When she was 10 years old her weight was only 48 pounds, 23 less than normal, but she was much taller than children of her own age. At the age of 15 she weighed only 60 pounds and when she attained her full stature at the age of 17, her weight was 98. When she was 12 a school physician told her she had a leaking heart though she had had no evidence of rheumatic fever and there was never any cyanosis, breathlessness or edema. Before her tonsils were removed, six years prior to admission to the hospital, she had sore throats occasionally but only one or two colds every winter. Her general health was quite good and she was never considered delicate. Menstruation began at the age of 14 and has been remarkably normal. The patient was married three years ago. There was one miscarriage of a six weeks' fetus one year before pregnancy which went to term. Libido has always been absent and orgasm is rarely attained. The only complaint of any significance to the patient has been her feet. For several years they often became abnormally cold and there was some numbness and tingling. Six years ago indolent lesions appeared on the dorsum of the feet and have persisted in spite of treatment with salves, lotions, X-ray and heat therapy.

Physical examination revealed that the patient was five feet nine inches tall, had a span of almost six feet and weighed 102 pounds. As the pictures reveal (Fig. 1) she was very angular and cadaverous with a generalized soft tissue atrophy giving undue prominence to the long gracile bones. The arms and legs seemed disproportionately long, partly because of the unusual thinness. The phalanges and metacarpals were long with the relative length increasing distalward (see Fig. 2). Marked hyperflexibility was present in the smaller joints, less marked in the large ones. The skin was remarkable chiefly for the purplish-brown, thickened, scaling lesions of the feet (Fig. 2). There was marked hyperkeratosis of the great toes, and increased callous formation on the palms and beneath the metatarsal arches and great toes. The hair was normal in amount and distribution. The head was dolichocephalic in type without bosses. Both temporal fossae were exaggerated giving undue prominence to the cheek bones which protruded below the sunken eyes and gave the face a pinched, forlorn expression. There were no ear deformities. The nose was narrow and aquiline. Fig. 4 shows a roentgenogram of the very large accessory sinuses. Of particular interest were the eyes. A right external strabismus of 35° could

be overcome with some difficulty, and the extra-ocular movements were adequate in all directions. There was no nystagmus. The irides showed typical tremulousness. There was an upward dislocation of both lenses, more marked in the right eye, where the lens revealed some cataractous change. Vision in the right eye was capable only of recognizing fingers at a distance of one foot, while it was 20/40 in the left. The left fundus was normal except for a marked increase in the size of the retinal veins. The right fundus could not be seen. There was a high palatine arch. The thorax had a typical pigeon-breast deformity with the left side more prominent anteriorly, while the spine revealed a moderate dextro-scoliosis and a round kyphosis (Fig. 4). The chest was also bell-shaped. There was no asymmetry in location, pigmentation, or size of the small breasts. Lactation, though scanty, had been present. The heart was of normal size. A weak systolic thrill was felt over the precordium; a harsh systolic murmur was heard best over the xiphisternum, beginning in midsystole and continuing into diastole, but not heard throughout the entire cardiac cycle. The heart sounds were not unusual. There were no pulsations in the dorsalis pedis arteries and those in the posterior tibials were weak. The arterial blood pressure was 100/55. The external genitalia were those of a 12-year-old girl with prepubertal labia and clitoris. A large cystic mass was palpable behind the posterior vaginal wall (see obstetrical note). Neurological examination revealed normal reflexes and sensorium. Motor power in the muscles was surprisingly good considering the attenuation of muscle mass.

Laboratory data revealed a negative Kahn, normal electro-cardiogram, and a basal metabolic rate of minus fourteen. The urine was negative. Blood examination revealed a red cell count of 3.96 million per cu. mm., hemoglobin of 12 grams per 100 cc., leucocyte count of 6,600 with a normal differential. Blood chemistry showed a urea nitrogen of 11 mg. per cent, carbon dioxide combining power of 56 volumes per cent, phosphorus of 4.9, calcium of 10.3, creatinine 1.2, and cholesterol of 176 mg. per cent. The chlorides were 459 mg. per cent as NaCl.

The cystic fluid was sterile, had 15,000 red blood cells per cu. mm. and an occasional mononuclear cell. The sugar was 77 mg. per cent, chloride 648 mg. per cent as NaCl, and protein 195 mg. per cent. Biopsy of the cyst wall revealed nothing but fibrous connective tissue.

X-ray examination (Figure 4) at various times revealed "rather marked deformity of the chest—probably congenital. The heart and mid-line structures are normal in size although they are somewhat to the left. Chronic bronchial changes are shown in both lower lobes. . . . No bone destruction is seen in either foot. Unusual growth is noted in the bones of the first metatarsal and phalanges of the great toe. This toe is several centimeters longer than the other toes. . . . The lower end of the left ankle shows an apparent synostosis between the distal end of the tibia and fibula. Examination of the pelvis with special reference to the sacrum shows a very prominent promontory. The first sacral segment forms a sort of shelf above the second. The normal foramina on either side are very much larger in this case than one usually sees. Very careful stereoscopic study of the sacrum fails to reveal any other abnormal opening. There is

no evidence of new growth or other destructive process."

Several congenital deformities in the infant of the patient reported above suggest that the child might have a related condition but there is no conclusive evidence that arachnodactyly exists. A few days after birth it was noted that the fingers were unusually long, but no other abnormality was found at that time. On February 15, 1938, the child was admitted to the pediatric service of the hospital because of an acute upper respiratory infection. It was found that there was



Fig. VI. The daughter of the patient showing (1) spasticity of the right leg at the hip with apparent but not real shortening of the leg, (2) abnormal prominence of the right upper chest, and (3) position of the head constantly turned to the left.

considerable deformity of the chest with marked prominence of the right upper thorax and depression of the left side anteriorly. The child constantly held its head to the left but was able to move it fairly well. The right hip was moderately spastic as can be seen in the picture (Fig. 6).

From the description and pictures of the case reported it is clear that the patient has almost all of the usual clinical findings of arachnodactyly. The skeletal, visceral, ocular and vascular stigmata are unmistakable. The hereditary element is seen in the chart of the family. In addition to already reported findings this case presents an unusual defect in the sacrum which has given rise to a cystic mass. In all probability this was originally a herniation of the tissue lining the sacral canal. The original communication between this cyst and the sub-

arachnoid space has been obliterated, and emptying of the sac produced no evidence of altered cerebrospinal fluid pressure. This is a rare form of extension of contents of the sacral canal through an abnormal opening, apparently not classical spina bifida.⁵

Study of this family does not permit any final evaluation of the suspected relationship between status dysraphicus and arachnodactyly. The patient has none of the findings which have been recorded only in cases of the former condition, whereas there are present most of the usual ones found in the latter. A point which could not be evaluated was the possible occurrence of status dysraphicus in the cousin of the patient whom it was impossible to examine. The evidence is equivocal for her child. At least it may be concluded that the congenital mesodermal defect known as arachnodactyly or Marfan's syndrome may appear in pure form without any of the defects described for status dysraphicus alone. The suspicion remains that there is some fundamental connection between the two, that a final common factor exists in the gene complexes which transmit the diseases, now giving rise to one, now to the other. What additional influences play a role in producing the multifarious manifestations of this mesodermal defect and the mechanism by which they act are questions for the future. No evidence can be adduced from this report that abnormal function of the endocrine glands is of significance.

SUMMARY

1. A study of a case of arachnodactyly is reported with a discussion of other structural deformities occurring in members of the same family.

2. This case had an unusual cyst arising from the linings of the sacral canal, a form of "spina bifida" not heretofore reported in this syndrome, resulting in an equally rare cause of cephalopelvic disproportion in pregnancy.

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Orange Juice and Calcium Metabolism

It is trite to state that the calcium salts exert an important influence on the life processes of tissues in general, and on muscle, bone, and nerve in particular. During the growth period, calcium must be present in food in sufficient quantity so that bone formation may proceed properly. More important for metabolic activity, however, is the distribution of calcium in the blood in normal concentration in both diffusible and nondiffusible forms. To a large extent, this is controlled and made possible by vitamin D and by the hormone of the parathyroid glands. It is still not clearly understood what the normal relationship between these two factors is, since the former favors absorption of the calcium intake, while the latter mobilizes this element from its storehouse in bone.

Lanford's work on the effect of orange juice in facilitating the assimilation of calcium is a further step in our mastery of the biochemical factors that promote growth. Despite the suggestion of Rubner who claims that there must be some special mechanisms of chemical nature in the skeletal tissue which enhance its growth, even at the expense of other tissues, it is still not clear how the calcium and phosphorus in the blood are deposited in the bone during the process of calcification. The studies thus far in this field have concerned themselves with the effects produced by "deficiencies." On the other hand, Lanford's observations in a series of controlled experiments in young growing rats furnish a new approach to the problem of calcium in relation to growth. When the diet of her experimental animals was supplemented by the addition of orange juice to the basic diet, the rapidity of growth was increased fully 10 per cent. In addition, it was determined by volumetric estimation of the ash of the carcass, less the gastrointestinal tract, that those rats that had been given orange juice stored in their bodies a distinctly higher percentage of calcium provided in the food than their litter-mate control animals. Of even more significance is the fact that some of the rats fed with orange juice were given a lower calcium intake than the controls, but they nevertheless assimilated a greater amount and higher percentage of food calcium than those given only the basic diet. Thus it seems that the clinical observation of Cheney and Blunt—that orange juice in some way favors the retention of calcium by growing children—has been given substantiation.

Lanford makes no comment concerning the factor in the orange juice that might be responsible for this ability to increase the assimilation of ingested calcium, beyond hinting that it may have some relation to the citrates and citric acid present in the fruit.—New York State Journal of Medicine, October 15, 1939.

Tuberculosis of the Chest Wall With Report of an Unusual Case

BERNARD B. LARSEN, M.D. and HARLEY A. WILLIAMS, M.D.

TUBERCULOSIS of the chest wall is frequent enough to be of interest to the internist and the general surgeon, though it is not a common disease. We wish to present a case with unusual diagnostic difficulties which was discovered before the formation of a demonstrable cold abscess or a draining sinus.

CASE REPORT

This patient, a nurse, age 26, was first seen by one of us (H.W.) November 19, 1936, complaining of a chronic cough worse during the previous week during which time she had registered mild fever, felt general malaise and a pain in her right chest accentuated with breathing, coughing and motion. There had never been any symptoms or signs of pulmonary disease in the past and there were no contacts for tuberculosis except in her professional capacity. Examination revealed mild pharyngitis with normal chest finding except poorly localized tenderness of the right posterior chest wall. Her chest was strapped but symptoms increased so she was admitted to Lakeside Hospital, November 24, 1936, at which time there were rales in both lungs without other signs, pain and tenderness in the right chest and tenderness under the right costal margin without spasm. No friction rub could be heard. Chest X-rays and sputum examinations were normal. Ten days later (December 4, 1936) except for a slight cough, all symptoms and signs had disappeared. Four months later (April 9, 1937) the patient was seen at the office (H.W.) complaining of dull aching pain in her right chest accentuated by breathing and motion, localized in the area of the seventh, eighth, and ninth intercostal spaces, extending from the dorsal spine to the mid-axillary line. There was tenderness in this area with some poorly localized hyperesthesia. The lungs, pleura and diaphragm revealed no abnormal signs. Two weeks later (April 26, 1937) on a return visit there was no clinical improvement and no further physical findings. Stereoscopic radiograms of the chest again showed no abnormal findings.

Five weeks later (June 4, 1937) the patient reported no improvement and that the chest pain was keeping her awake, interfering with her work and was quite unbearable. Examination revealed only tenderness in the seventh and eighth intercostal spaces from the right paravertebral line to the mid-axillary line with some hyperesthesia. Cholecystograms and KUB radiograms were normal.

Eight months later (February 1, 1938) or approximately 10 months after she first complained of pain in her side, she reported she absolutely could not withstand the pain longer and was readmitted to Lakeside Hospital for study. The symptoms were the same. The pain radiated from the right paravertebral area to the mid-axillary line in the seventh, eighth and ninth intercostal spaces. There was some hyper-

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sensitivity to pressure but light touch, pin prick and heat sensations were normal. X-rays and fluoroscopic examinations revealed a well defined and circumscribed shadow four centimeters in its longest diameter in the region of the eighth rib in the posterior axillary line. This shadow moved up with the ribs on inspiration while the lung markings moved down, the visceral and parietal pleura apparently being free of each other. All previous X-rays of the chest had not shown this lesion. A positive X-ray diagnosis could not be made. Aspiration was attempted under fluoroscopic guidance but failed to get either solid or fluid material. The lesion felt very hard with the aspirating needle.

Exploratory thoracotomy on February 7, 1938 (B.B.L.) revealed a granulomatous mass, roughly 4x6x3 centimeters in diameter localized in the right posterior axillary line underlying the seventh and eighth ribs and lying between the internal intercostal muscles and the parietal pleura. Portions of the seventh and eighth ribs were removed to enable adequate exploration of the lesion and the lesion itself was completely excised with sharp knife dissection. The visceral pleura, as seen through the parietal pleura, was not involved and moved normally on respiration. The field was wet on closure so temporary drainage was instituted. The post-operative course was uneventful. A smear from the involved tissue was loaded with acid fast tubercle bacilli and the pathological diagnosis on the tissue removed was tuberculosis. The patient has been followed closely and the wound has remained well healed, without induration or thickening of the chest wall. Repeated X-rays, the last of which were taken March 18, 1939, showed no evidence of recurrence.

DISCUSSION

Tuberculosis of the chest wall is not most frequently seen in patients with demonstrable active tuberculosis elsewhere. Twinam¹ reports an incidence of only 0.14 per cent in inmates of Oakdale Tuberculosis Sanatorium. Walton² reports active pulmonary tuberculosis by X-ray in three of his 18 cases and Carr and Alexander³ report five out of 32 (average 16 per cent). The disease occurs most frequently in children and young adults.

Tuberculosis of the chest wall usually, and perhaps always, begins in the lymphatics.

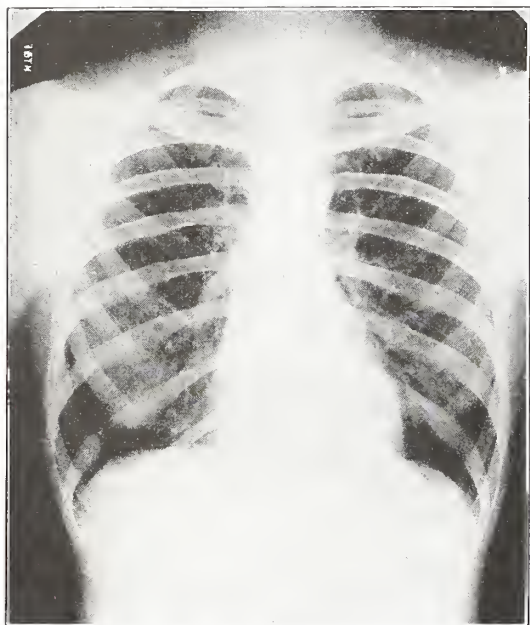


Fig. 1. X-ray of chest April 26, 1937, showing no evidence of abscess or active tuberculosis.

Kaufmann⁴ found the intercostal lymph nodes involved in all specimens removed at operation and believes these nodes became infected as a result of tuberculous pleurisy, the abscess in the lymph node not having formed until the pleural lesion had healed, thus accounting for the normal appearing pleura so often encountered in these cases. Auchincloss⁵ and Alexander³ believe lymphatic routes of the thorax are primarily responsible and Meade⁶ believes tuberculosis of the chest wall is the result of lymphatic extension or by way of the blood stream from a primary intra-thoracic lesion. He believes "practically all patients with local manifestation show evidence of concurrently active, or previously active intra-thoracic tuberculosis". In 98 cases reported by Fishberg⁷ there were only six in which sequestra and probably primary bone lesions were found. It seems unlikely that the thoracic wall lesion ever occurs by direct extension from the pleura except in those cases where a pleural

puncture has been made with a needle and extension of the infection takes place along the puncture wound. Characteristically tuberculous chest wall lesions extend away from the pleura even though the disease may become quite widespread in the chest wall.⁸

UNUSUAL CASE

We found no cases in the American literature or in abstracts of foreign papers where surgery was done upon these patients before there was external clinical evidence of a cold abscess or a fistula. In this respect the case we are reporting is unusual. In many cases the ribs or cartilage are involved before a diagnosis is made. Sorrell and Syac-Dromer⁸ report 35 cases and in only 10 was the lesion confined to the soft parts. In Meade's⁶ cases the order of frequency was bony ribs first, then sternum and soft parts and cartilage last. Characteristically the lesions occur on the antro-lateral aspects of the chest wall rather than posteriorly,⁵ probably along the internal mammary lymph chain.³

Characteristically the cultures from these abscesses or sinuses show no growth unless special culture media is used. On guinea pig inoculation or direct smears the tuberculosis organism is quite often found. Microscopic sections of the diseased tissues are usually characteristic of tuberculosis.

The symptoms are characteristically few and mild. The patient first notices discomfort and sometimes pain which is followed later by tenderness over the area. The distress may be accentuated by deep breathing and there may be radiation of pain along the intercostal nerve distribution as in our case. At least several weeks pass before the lesion becomes superficial enough to be palpated and by that time is usually fluctuant. Even at this stage the tenderness is not acute. In the untreated case the lesion progresses, the skin is perforated, and fluid, which varies from thin, clear yellow to thick grey, escapes. After perforation or incision a sinus persists. The patient usually shows little concern because the symptoms have been so mild.

The general health of the patient is not characteristically involved and the absence of tuberculosis elsewhere does not rule out the diagnosis. X-ray examination rarely shows anything of aid in the diagnosis, though occasionally there is a calcified area which is almost pathognomonic. The involvement of ribs is usually so slight that no X-ray change is seen and when cartilage is involved no X-ray changes are shown.

If cases go on untreated the involvement of the chest wall may become extensive. When cartilage becomes involved extension throughout is sometimes rapid. The involvement of ribs and cartilage in untreated cases is to be expected; and the formation of numerous sinuses is com-

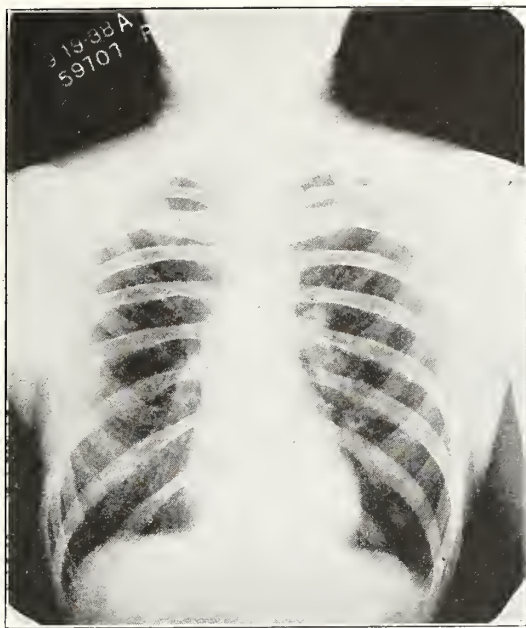


Fig. 2. X-ray of chest February 2, 1938, showing tuberculosis lesion extending inward from chest wall.

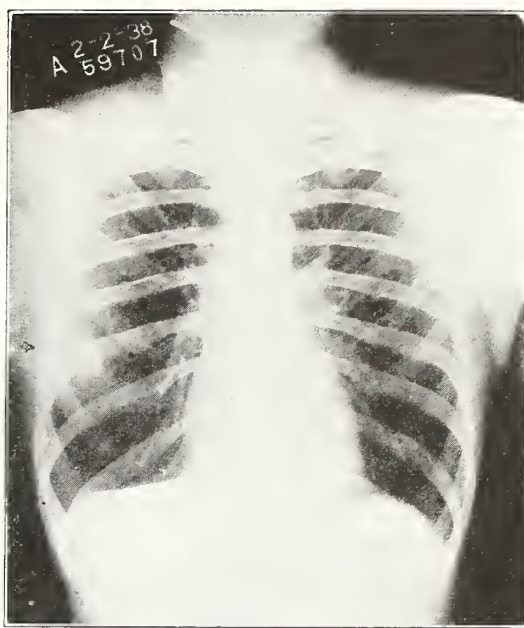


Fig. 3. X-ray of chest September 19, 1938, seven months after excision of tuberculosis and portions of seventh and eighth ribs.

mon. Though extension may be wide in the chest wall there has been only one case of extension into the pleural cavity reported.⁹

The diagnosis of the lesion is made primarily, and usually without great difficulty, on the physical findings and the history, if the case is seen after abscess or sinus formation has occurred. The finding of Koch's bacillus cinches the diagnosis. Syphilis of the chest wall must be ruled out along with actinomycosis, blastomycosis and other granulomatous lesions. Acute osteomyelitis of the ribs or acute suppurative abscesses of the chest wall are rarely confusing.

The prognosis in early cases treated by radical excision of all involved tissue is good. Late cases, no matter how treated are difficult to cure. Even though a lesion appears completely healed for several months it may break down and form another abscess or sinus. Rarely if ever does spontaneous healing of tuberculosis of the chest wall occur.

TREATMENT

Various types of treatment have been employed. Simple aspiration or aspiration with replacement of fluid by iodoform or glycerin have been tried and found unsatisfactory. Incision and drainage only causes the formation of a chronic fistula. The only satisfactory treatment has been complete extirpation of the diseased tissue including ribs and cartilage if involved, or if removal of such normal structures facilitates the operation technically. Primary closure, if possible, is the treatment of choice. If necessary temporary drainage may be instituted. In 18

cases treated by excision by Walton² 12 healed. Carr and Alexander³ report 12 healed out of 32 and seven dead. Their cases for the most part had extensive involvement, with other complicating factors. Others report excellent results with total extirpation as opposed to other methods of treatment but fail to give figures. It is sufficient to say that there are no good results reported from any other kind of treatment.

SUMMARY

1. An unusual case of tuberculosis of the chest wall extending in toward the chest cavity and operated upon before the formation of a demonstrable cold abscess or a draining sinus is reported.
2. The characteristics of tuberculosis of the chest wall are outlined.
3. The treatment of choice is radical excision.

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Severe Anemia Associated With Diaphragmatic Hernia

HAROLD S. SCHIRO, M.D. and JULIEN E. BENJAMIN, M.D., F.A.C.P.

THE purpose of this communication is to call attention to the fact that diaphragmatic herniation of the stomach may be the cause of severe anemia, to discuss etiology and management of this anemia, and to present a family in which three sisters were found to have similar hiatus herniation of the stomach.

CASE REPORT

Mrs. B. B., a 56-year-old married white woman, who has been under the care of one of us (J.E.B.), for a number of years for mild hypothyroidism, appeared on January 9, 1939, after a lapse of two years, complaining of edema of her lower extremities, weakness, and exertional dyspnea, which had been progressing very slowly for at least a year. There were no symptoms of abdominal distress, fullness, or "indigestion". The physical examination disclosed a very marked pallor of the skin and mucous membranes, papillary atrophy of the tongue, and moderate edema of the lower extremities. The heart and lungs were normal. The liver and spleen were not palpable. There was no abdominal tenderness. The pelvic and rectal examinations were normal. The neurologic examination was normal save for general muscular weakness.

Between January 10, 1939, and January 12, 1939, she was at the Jewish Hospital where the following studies were made:

The erythrocyte count was 2.48 million. The hemoglobin was 5.5 gms. The volume of packed red cells 19.3 per cent. Mean corpuscular volume 77.8 cubic microns, mean corpuscular hemoglobin 22.0 micro-micrograms, mean corpuscular hemoglobin concentration 20.0 per cent. The white blood cell count was 5100, with a differential of 60 per cent polymorphonuclear granulocytes, 2 per cent eosinophiles and 38 per cent lymphocytes. The platelets were normal in number. The reticulocyte count was 2 per cent. Sternal bone marrow, examined after the technique of Doan et al¹ disclosed a marrow with active erythropoiesis. A number of nucleated red blood cells were seen in mitosis. The late erythroblast and normoblast were the predominant nucleated red cells. The ratio of granulocytes to nucleated red blood cells was 1.5 to 1.0.

Gastric Analysis with 0.5 mgm histamine was as follows:

	F.A.	C.A.	T.A.
Fasting	0	0	0
15 min.	50	20	70
30 min.	76	16	92
45 min.	45	25	70

There was no gross or occult blood.

The urine examination was negative. The B.M.R. was plus 19 per cent. The stools gave a very strongly positive test for occult blood.

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Proctoscopic examination revealed a normal mucosa without evidence of neoplasm or bleeding source.

X-ray Report. (See Figure I).

X-ray examination of the stomach after the ingestion of a barium meal shows protrusion of the fundus of the stomach through the esophageal hiatus. The entrance of the esophagus is above the diaphragm, but there is no evidence

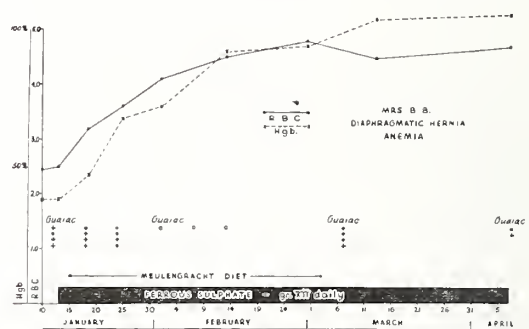


Chart No. 1 Response of erythrocytes and hemoglobin to Meulengracht diet and ferrous sulphate in patient Mrs. B. B. Occult blood in stools as measured by the guaiac test is recorded.

of shortening. Contour of the stomach was smooth and regular. Peristalsis was active. Stomach emptied readily. Duodenal bulb filled well. Its contour was regular. Small bowel appeared normal. Barium enema revealed no evidence of obstruction or deformity throughout the course of the colon. There was slight spasm of a portion of the sigmoid colon, but this disappeared



Fig. 1. Mrs. B. B. X-ray of stomach with barium demonstrating paraesophageal diaphragmatic hernia.



Fig. 2. Mrs. R. B. (sister of Mrs. B. B.) X-ray of stomach with barium demonstrating hernia similar to that of Figure 1.

(Courtesy of Dr. Reuben Solomon, Indianapolis, Ind.)

under fluoroscopic examination. Examination of the gall bladder after the oral administration of T.I. dye showed the gall bladder to fill out uniformly, but faintly. There was no evidence of any calculi.

Diagnosis—Paraesophageal Diaphragmatic Hernia.

Treatment consisted of complete bed rest, the use of a modified Meulengracht diet² and the addition of ferrous sulphate grs. XII daily. The hematologic response and the state of occult blood in stools, as seen in Chart I.

DISCUSSION

On the basis of the above data a severe anemia of the hypochromic microcytic type was apparent, associated with blood loss from the gastro-intestinal tract and with an active attempt to compensate on the part of the bone marrow. Since the only abnormality of the gastro-intestinal tract which could be demonstrated was the herniation of the stomach this lesion was considered the likeliest cause for the anemia. Earlier reports have indicated that such an association may exist. In 1933 Bock et al³ called attention to the "secondary anemia" associated with diaphragmatic hernia and presented 10 cases. In one of two cases autopsied the mucosa proximal to the point of constriction had a pinkish appearance and the surface was diffusely sprinkled with injected areas measuring up to 2 mm. in diameter. There was no evidence of ulceration or erosion of the mucosa. In the second case "examination was performed too long after death to detect the presence of small areas in the mucosa which might have oozed blood. It is significant that no ulceration or erosion was found and that no varices developed". In three other cases of this series abdominal explorations revealed no cause for the bleeding. He concluded that the congestion of the mucous membrane of the stomach

presumably caused by increased venous pressure, is the cause of the bleeding.

Root et al⁴ refer to repeated hematemesis in one of their cases of diaphragmatic hernia without evidence of ulcer. They postulated that the hemorrhage was due to erosions of the gastric mucosa at the site of the constricting ring of the hernia. Eisen⁵ in a discussion of the symptoms of hiatus hernia states that secondary anemia, associated with hematemesis or melena is present occasionally. This author remarks upon the appearance of repeated attacks of hematemesis and melena. On March 16, because of the reappearance of a positive guaiac test on the stool, a gastroscopic examination was performed by Dr. Leon Schiff in an attempt to observe the site of bleeding. The gastric rugae were described as decreased in prominence, some of them being abnormally red. No erosions or ulcerations were seen. No differences were noted in the mucosa above or below the diaphragm.

The management of this anemia has received little attention in the discussions of hiatus hernia. Eisen⁵ remarks that hemorrhage and anemia should be treated "in the usual way". The experience of Schiodt⁶ in the study of blood regeneration in patients with hematemesis or melena from peptic ulcer treated with the Meulengracht diet and iron led us to the use of this regime in the present case. This diet which was described by Meulengracht² includes milk and cream, meat, fish, vegetables, fruit, potatoes, all minced. The feedings are given in small amounts at frequent intervals. The theoretical considerations of this diet are based upon the now classical work of Whipple et al⁷ on the regeneration of blood in dogs after hemorrhage. From Chart I it will be noted that in one month on a diet similar to that of Meulengracht, our case regained approximately 2.0 million red blood

cells and 8.0 gms. of hemoglobin. After between 11 and 18 days of treatment, the stools became free of occult blood. With the improvement in the blood picture there was a disappearance of her symptoms of edema, weakness, and dyspnoea. The importance of continuing the diet and iron is seen in the fact that on the 54th day of treatment the stools again showed the presence of occult blood. From the cause of the blood loss postulated in these cases intermittently continued oozing of blood is to be expected and this is confirmed in Bock et al's³ cases. With an adequate diet and iron intake the blood count can be maintained at a normal level and annoying symptoms of anemia prevented.

THE FAMILIAL OCCURRENCE OF DIAPHRAGMATIC HERNIA

Although the incidence, roentgenological classification, clinical classification and clinical symptoms of herniation of the stomach have been described in detail by many authors in the past decade, no mention of the familial occurrence of hiatus hernia could be found. Accordingly the occurrence of hernias similar to those of our patient in two of her sisters is reported. Through the cooperation of the attending physicians the following information is available on the members of our patient's family. Of five sisters, and one brother, there were two sisters with known diaphragmatic hernias. Through the courtesy of Dr. Reuben Solomon, of Indianapolis, we are able to present the X-rays of one of the sisters (Mrs. R. B. Figure 2), and other pertinent facts of her case. This patient, now 63 years of age, has had periodic attacks of nausea, vomiting, epigastric pain, and tenderness during the past 11 years. Several series of X-ray studies have shown no abnormality except a diaphragmatic hernia. A moderate secondary anemia (hemoglobin 12.5 gms. and erythrocytes 3.9 million), was present at the last examination one year ago. There has never been any marked anemia to the knowledge of the physician. Through the courtesy of Dr. S. H. Wetzler, of Milwaukee, we are able to include a note about one other sister with a diaphragmatic hernia. This patient (Mrs. H.), who died of metastatic carcinoma of the breast developed gastric and abdominal symptoms several months before her death. Gastro-intestinal series showed a diaphragmatic hernia with a definite ulcer in the herniated portion of the stomach. A phrenicectomy which allowed the incarcerated hernia to descend below the diaphragm caused all of the gastric symptoms to subside. Postmortem study of the stomach showed no evidence of any previous ulceration.

CONCLUSIONS

1. A case of severe hypochromic microcytic anemia due to blood loss from the gastro-enteric

tract associated with a hiatus hernia of the stomach is presented.

2. Review of literature suggests that this anemia is probably caused by congestion of the gastric mucosa proximal to the site of constriction, although this could not be confirmed by gastroscopic examination.

3. Recurrent melena has been observed as is to be expected, and rest, diet, and iron are recommended in its treatment.

4. The Meulengracht diet with ferrous sulphate produced a very satisfactory hematologic response.

5. A family in which three sisters had diaphragmatic herniation of similar nature is presented.

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Streptococcal Infections

In regard to the removal of tonsils and adenoids, the evidence is not very convincing that their removal is followed by a decrease in the number of attacks of rheumatic fever; at least, it can be said that they cannot be prevented by this procedure. There is some evidence that would lead one to believe that attacks of infection of the lymphadenoid tissue are somewhat less frequent in tonsillectomized groups of individuals, and that there are fewer carriers of hemolytic streptococci in the tonsillectomized group. It is perhaps well, then, to remove the tonsils and adenoids of such subjects when they are subject to hemolytic streptococcal infection.

The recent studies of Coburn and Moore and Bedell-Thomas and France are most encouraging since they have been able to prevent hemolytic streptococcal infection in rheumatic subjects by the daily administration of small doses of sulfanilamide over a period of two years. If this should prove to be an experience which can be repeated over a period of years, then it is a very definite step in the way of preventing hemolytic streptococcal infection and recurrent attacks of rheumatic fever.—Chester S. Keefer, M.D., Boston, Mass.; *Texas S. Jour. of Med.*, Vol. XXXV, No. 7, November, 1939.

Errors in Diagnosis

H. S. APPLEBAUM, M.D.

ERRORS in diagnosis are common. He who never has erred in his diagnosis has not really practiced medicine. My object in presenting this paper is not merely to relate errors in diagnosis that I have made or have seen others make, but rather to stimulate thought toward the prevention of such errors by citing a few glaring examples. For the sake of convenience these errors may be classified under several headings.

I. INCOMPLETE EXAMINATION

This may be exemplified in a case of a young lady who complained of headaches of two years' duration which had been diagnosed as neurosis by several physicians. One glance at her eye-grounds revealed the true condition: she had a brain tumor. Incomplete examination may be due to any of the following reasons:

(a) **Because the diagnosis seems obvious.** Not very long ago I was called to see a child of 11 who complained of a sore throat, cough, and some fever, all of which pointed to a simple upper respiratory infection. Hence reflexes were not tested. Three weeks later the child was dead of infantile paralysis. Another example: A call to see a supposedly dying patient who had just returned from the South where a diagnosis of malignancy of the stomach had been made, and at first glance he certainly looked the part. However, on the third day I began to inquire when X-rays had been taken, and learned to my great surprise that no roentgen examination had been made. I immediately referred the patient for a gastro-intestinal series which revealed no malignancy but a duodenal ulcer. The patient lived for eight years after that, to die of cancer of the bowel.

(b) **Because a certain diagnosis appears likely.** An intern will often easily make a good snap diagnosis, but more often he will be wrong, because he does not think of all the possibilities. Recently we had an old lady on the open ward who complained of pains in the abdomen, nausea, vomiting, and loss of weight. She was examined in consultation with a surgeon. In spite of the negative X-ray, malignancy of the gastro-intestinal tract was deemed likely. On operation the surgeon pulled out a small loop of gut from a femoral hernia. The hernia was there all the time, but we did not look for it. Its small size rendered it unobtrusive and we did not think of it as a possibility.

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(c) **Because the patient is old, infirmities are taken for granted.** An old lady gave her age as 73. (A week later she returned and gave her age as 81). She complained of anorexia, loss of weight, pains in the abdomen. She had consulted another physician for these symptoms and had been told that she was suffering from some indigestion due to old age, and to go home and forget about it. From the symptoms it looked like a hopeless case of malignancy. She was referred for an X-ray, which showed no malignancy but a peptic ulcer, and under treatment the patient gained health and strength.

(d) **Because of fear of offending the sensibilities of the patient.** This is particularly true of vaginal and rectal examination. Because of the sensitivity of the patient, especially in the case of elderly women, the last two examinations are usually omitted, even in hospital practice. Not long ago I found a malignancy of the rectum and foreign bodies in the vagina, in the course of a routine examination. I saw a patient who had developed extensive anular carcinoma in the vagina around a pessary which had been placed there 11 years previously, and which the patient had forgotten about.

II. UNFAMILIARITY WITH THE DISEASE IN QUESTION

One of our famous cases was one of periarthritis nodosum. The patient presented all the signs and symptoms of this disease, even the subcutaneous nodules. The diagnosis was evident enough, but due to our unfamiliarity with this condition at that time, we were unable to recognize it. It was the pathologist who finally made the correct diagnosis.

III. FAILURE TO CONSIDER ALL THE POSSIBILITIES

Recently I had two young patients with urine loaded with pus, with practically no other signs or symptoms. Treatment for cystitis failed to clear up the condition. I finally persuaded them to be cystoscoped. One was found to have a huge

Submitted Sept. 25, 1939.

From the Medical Department of Mt. Sinai Hospital, Cleveland, O.

diverticulum of the bladder, the other a pus-bag instead of a kidney. I have also seen an old man who had been treated for cystitis for several years; finally, when cystoscoped, he proved to have vesical calculi. Recently I saw a patient operated on for cholecystitis; what he had was a tabetic crisis. It is surprising how often we find lues only serologically. One is amazed at the frequency of cancer in elderly people, when we look for it. Let us remember that pregnancy can occur even in a supposed virgin, lues in a minister, brain-tumor in a neurotic, and that there may be appreciable pathologic change in the lungs without any evidence of it on physical examination; also that cardiac disturbance and psychosis may have an unsuspected thyroidism as their cause.

IV. INCOMPLETE HISTORY

Mistakes may often arise from lack of proper attention to the history. A patient who complained of a tender swelling in the region of the thyroid, with tachycardia, slight tremor of fingers and slight loss of weight was recently referred to one of our leading surgeons. He told her that she had a goiter and should go to the hospital immediately to be operated on. Hot applications to the neck and rest in bed for four days caused the disappearance of all symptoms. The surgeon failed to take into account that the swelling was painful, that it was of only a week's duration, and that the patient was worried about it. This was a case of simple thyroiditis.

V. IMPROPER EVALUATION OF SYMPTOMS

Recently a patient was seen with pain in the right flank, with an acute onset, and followed by nausea and vomiting. He was a little tender over the right costo-lumbar region, and so was referred to the dispensary for X-ray of the kidney. There a diagnosis of lumbago was made, and he was referred to the orthopedic department where the diagnosis of lumbago was confirmed, thought to be due to arthritis of the lumbar spine. His teeth were extracted and he felt improved. A month later the patient consulted me again for similar pains and the urine showed at that time many red blood cells. I then referred him to the genito-urinary department, where definite pathologic involvement of the right kidney was found. The doctor in this instance forgot to evaluate the symptom of nausea and vomiting at the onset of the attack, which does not, as a rule, occur with lumbago, and he also failed to examine the urine repeatedly.

VI. PAIN OF UNCERTAIN ORIGIN

Many errors in diagnosis occur in evaluation of pain in the right upper quadrant, the busiest traffic corner in the body. Here one has to consider the stomach, duodenum, liver, gall bladder,

and kidney, with all the pathological conditions they may fall heir to—quite a formidable array. In addition, one has to bear in mind a high appendix, hepatic flexure of the colon, radiculitis, herpes zoster, besides referred pain from the heart, lungs, and diaphragm. One still sees too many cases of coronary occlusion diagnosed as acute indigestion because of the gastric symptoms. In elderly people and in those with arterio-sclerosis and hypertension, it is best to consider such gastric complaints as cardiac in origin unless proved otherwise. Gall bladder disease is still often undiagnosed, in spite of its wide prevalence.

Recently a patient was brought to the hospital with sudden severe pains in the epigastrium, nausea and vomiting, and rigidity in the upper right quadrant. The first impulse of the surgeon was to operate for a perforated viscus, but he wasn't sure so he decided to wait for developments. An X-ray at this stage would easily have revealed, under the domes of the diaphragm, escaped air from a perforated peptic ulcer. On the third day a medical consultant found signs of involvement at the base of the right lung, and because of the subsidence of symptoms in the right upper quadrant, he, too, decided to wait. Meanwhile the signs in the chest progressed and the patient became more toxic. A thoracentesis yielded a few cc. of pus. An X-ray at this point revealed a huge sub-diaphragmatic abscess, with infiltration in the lung—an extension from below. Both the surgeon and the medical man had erred—and the patient died. The old adage still holds good: the longer a patient with a perforated viscus lives before operation, the shorter he lives after operation.

Kidney conditions are often overlooked because of lack of persistent and complete urinalysis. A patient consulted me for pain in the left lumbosacral region. I told him it was a "strain". The urine at this time was negative. A few weeks later he became alarmed because he voided a bloody urine; and one week later he passed a small calculus.

VII. LACK OF KNOWLEDGE

Only a decade or two ago, "acute indigestion" was a common diagnosis; hyperparathyroidism was unknown; terminal ileitis was erroneously called appendicitis; periarteritis nodosum was unrecognized; tularemia was unheard of; lipoid pneumonia was unknown; diabetic coma spelled death, and pernicious anemia was considered a hopeless disease. We are yet unable to diagnose malignancy early; our knowledge of endocrine disturbance is hazy; allergy is still in its infancy; not all factors of edema are known; vitamin deficiencies are only partly understood; blood dyscrasias are often confusing, and abdominal conditions are not always correctly diagnosed.

VIII. CLASSIFICATION OF OBSCURE CONDITIONS AS NEUROSIS

In my opinion, neurosis is not a safe diagnosis to make, not that I deny its existence. But as soon as such a diagnosis is made, all further investigation is usually discontinued, and all future complaints are attributed entirely to the neurosis. I have seen the following diagnosed as neurosis: brain tumors, encephalomalacia, multiple sclerosis, central nervous system lesions, early tuberculosis, early Basedow's disease, hyperinsulinism, polycythemia, early malignancy, and many others. One should be sure of his ground in making such a diagnosis. Generally it is better to have the patient return for repeated physical examination to rule out slowly developing organic disease. It is often overlooked that the underlying pathological condition in itself may set up an associated neurosis. Some one once remarked that the physician who gives morphine in a hurry puts two people to sleep. A similar statement can often be made about the snap diagnosis of neurosis. One of the most famous cases in this hospital was that of a barber 36 years of age. The story goes that while massaging the scalp of a nurse, his hand wandered just when the superintendent of nurses appeared on the scene. Immediately following this incident, the patient failed to recognize his acquaintances, lost all interest in his environment, neglected his family, refused to work, and began to brood. He was treated for neurosis for some time, and was even given hypnosis. Finally he was admitted to this hospital and diagnosed hysteria. He expired 21 months later at the City Hospital, from multiple cysts of softening of the brain.

EXPLORATORY LAPAROTOMY

Many physicians avoid exploratory laparotomy because it is an admission of ignorance. Such a view would never solve the problem of the patient nor bring us any closer to a proper diagnosis. Where we have exhausted all the possibilities of physical and laboratory diagnosis, exploratory laparotomies are definitely indicated. In a few cases it might help the patient, and in others, establish the diagnosis. Should exploratory laparotomy in any given case prove too great a risk to the patient's life, one would naturally avoid it.

SUMMARY AND CONCLUSION

I have attempted to point out some of the more common errors in diagnosis under various headings, and have cited some pertinent examples. That there are many more will be testified by every conscientious physician. Many errors may be avoided by keeping the following tenets in mind:

(1) Don't take anything for granted; (2) Take a careful history; (3) Make a complete physical

examination; (4) Consider all possibilities; (5) Think of the commoner conditions first but don't overlook the rarer ones; (6) Weigh all evidence carefully; (7) Do laboratory work freely, but do not depend solely on the laboratory for a diagnosis; (8) The clinical picture is still the most important factor in formulating a diagnosis; (9) Seek greater knowledge and wider experience; (10) Think of the patient first, last, and all the time.

To err may be human, but when it is at the patient's expense it becomes inhuman, and unpardonable if it can be avoided.

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The Male Sex Hormone

Cases have been reported by Kurzrok, Birnberg, Livingston and others in which treatment of the menopause by the use of estrogenic substances was undesirable. The male sex hormone, having no effect upon the endometrium of the female, was considered as possibly an ideal material. A large number of cases have been reported to the present time and many of them extremely intractable so far as relief of symptoms is concerned under estrogenic substances. These particular cases, under testosterone propionate in doses varying from 30 to 50 milligrams weekly have become free of symptoms.

It may be interesting to note in the literature the reported observations in some two hundred cases following the use of testosterone propionate:

1. Increased libido.
2. Increase in vitality and a great lessening of the fatigue syndrome.
3. Increase in the size of the phallus, scrotum and seminal vesicles within the limits of the normal variation.
4. Increase of hair on the pubis, axillae, extremities and beard development.
5. Lower voice in cases where the voice was high-pitched and effeminate.
6. Definite psychological changes. Patients become less bashful, develop an optimistic outlook with increased self confidence and other masculine traits.
7. A gain in weight in almost all reports. Some cases reported as much as from thirty to forty pounds gain in from six months to a year. This occurred especially in the underweight patient with eunuchoid type of hypogonadism.
8. Definite changes in the skin. The skin became oily, there was an increase in sebaceous secretion and many clinicians are reporting the development of acne vulgaris. This observation may be valuable in the future in explaining the development of acne near the ages of puberty in boys and girls.—W. Merritt Ketcham, M.D., Kansas City, Mo.; Jour. Mo. S. Med. Assn., Vol. 36, No. 11, November, 1939.

Differential Diagnosis of Hyperthyroidism

JOSEPH L. DE COURCY, M.D.

ALTHOUGH laboratory tests play an important part in the diagnosis of hyperthyroidism, their role lies mostly in confirming the clinical diagnosis and determining the extent of the toxemia. The cardinal signs of hyperthyroidism, when present, are still our best diagnostic guide.

In a paper¹ published in 1920, I wrote: "Many tests have been utilized and perfected in the past few years, some of which promise to aid us greatly not only in a more correct diagnosis of each case, but also in determining the proper treatment in the various forms of goiter. Chief among these is the 'metabolic test' as made by the Benedict or Haldane apparatus, McCaskey's hyperglycemia test, etc. Of course, all these tests, if thought useful, should be used in order to ascertain the degree of toxicity in any given case, but we should not allow 'the tail to wag the dog,' that is, the surgeon should always refer to his clinical powers of observation and judgment, and to his operative experience, using every laboratory test available to aid him in his decision."

Almost 20 years have elapsed since these words were written, and in that time immense strides in the recognition and treatment of hyperthyroidism have been made. But one factor—and that the chief one—remains unchanged; that is, the wisdom and experience of the diagnostician. The laboratory technician and the roentgenologist may be of the greatest imaginable assistance to him; but unless the examining physician has keen eyes and sensitive finger-tips, unless he has a sound and thorough grounding in the fundamentals of anatomy and physiology, and above all unless he has that "diagnostic instinct" which is as much the culmination of inheritance and training as is the ability of a hunting dog to nose out game, he cannot fully avail himself of the aid X-ray and laboratory have to offer him.

So much has been said and written of thyroid disease, especially since the World War, that it would seem that the possibility of its existence would be constantly in the mind of every physician called upon to make diagnosis of conditions presenting any of the manifestations known to be characteristic of thyroid disturbance. Yet incipient hyperthyroidism is frequently—I might almost say regularly—overlooked. And it is not that the average physician is unacquainted with the symptoms of thyroid disturbance. He can recognize it readily when he sees it. The trouble is he does not see it.

The Author

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CARDINAL SYMPTOMS OF HYPERTHYROIDISM

But first, let us for a moment consider what the cardinal symptoms of hyperthyroidism are: Chief among them I would list an increase in the metabolic rate. This can only be determined by laboratory procedures; yet unless hyperthyroidism is suspected, these procedures will not be undertaken. Second is persistent tachycardia, usually with increased pulse pressure.

Next in importance I would place a noticeable decrease in weight and a corresponding loss of physical strength, usually—but not always—despite a good or even voracious appetite. The man of whom it is said, "He eats so much it makes him poor to carry it around", may very well be an incipient case of hyperthyroidism. Fourth, I would place nervousness and fine tremor of the extremities, and fifth, would be diffuse enlargement of the thyroid gland.

Exophthalmos is so markedly characteristic of thyroid disease that the first glimpse of a patient with this manifestation is enough to bring the possibility to the examiner's mind. But the absence of exophthalmos does not insure the absence of hyperthyroidism. And there are other conditions which cause the eyeballs to protrude which are not in any way connected with the thyroid. In the same way we may have hyperthyroidism without demonstrable enlargement of the gland.

So much for the positive indications of hyperthyroidism. Let us consider for a moment the cause of the most prominent symptoms of thyroid imbalance, particularly the ocular and cardiac disturbances and the increased metabolic rate. Some years ago I offered an explanation of certain of these manifestations which I will take the liberty of repeating:

"Careful clinical study of the complex symptomatology of Basedow's disease will greatly clarify our knowledge of this common malady", I wrote in 1928. "Most of the symptoms of

Submitted June 30, 1939.

exophthalmic goiter may be explained on the basis of an imbalanced sympathetic nervous system subjected to the action of some circulating sympathomimetic toxin. Exophthalmos and the other ocular symptoms of Basedow's disease are due to stimulation of the sympathetic fibers by which the orbitalis and Müllerian muscles are innervated. Tachycardia in Graves' disease results from stimulation of the cardio-accelerator centers in the cervical sympathetic ganglia. The increased basal metabolic rate seems to be due to two factors; namely, the increased aeration in the lungs resulting from dilatation of the bronchial tubes, and a direct effect from the hormone of the thyroid gland. The tremor is produced by irritation of the sympathetic nerve fibers distributed to all voluntary muscles. The goiter itself arises from hyperplasia of the thyroid gland. However, there is no increase of colloidal substance, iodine or thyroxine. The bruit over the gland results from the partial compression of the common carotid artery by the enlarged organ. With the single exception of increased basal metabolic rate, autonomic imbalance presents all the symptoms of exophthalmic goiter."

I have just portrayed a picture of well defined hyperthyroidism. But what of the mild and atypical cases which present but few, or perhaps none, of the signs by which we learned in medical school to differentiate conditions due to thyroid disturbance from other states fundamentally different but clinically similar?

The mild or "masked" case may be extremely misleading, even to an experienced diagnostician. On a correct interpretation of the history as given by the patient himself—a notably unreliable witness—must reliance be placed to judge whether or not we are dealing with nothing more than neurasthenia.

If the symptoms are continuous, if the tachycardia, fine tremors and intense "nervousness" have been consistently present and steadily increasing in severity, the inference in favor of hyperthyroidism is strong, even though none of the cardinal signs be present. Especially if the tachycardia and tremor increase under excitement or unusual muscular exertion is the suspicion of hyperthyroidism strengthened. With the increase in "nervousness" are associated mental irritability, easy loss of self-control, and fits of "bad temper" in persons who earlier in life were amiable and self-contained. This type of hyperthyroidism is not often seen in the young, but rather in early middle life or shortly before the menopause in women who have been more or less affected with "nervousness" since puberty. If a fine tremor of the extended hands can be detected in a patient showing signs already mentioned, the suspicion of hyperthyroidism will be still more strengthened (Means³).

Directly after the War we saw a good many cases of what used to be known as "irritable heart," so many indeed, that we came to speak

of it as "soldier's heart." Nowadays we call it "neuro-circulatory asthenia," but it is the same old thing which masquerades in various disguises, and is especially troublesome in the differential diagnosis of thyroid imbalance. It is not a disease entity but rather a syndrome. Indeed, it has sometimes been called "effort syndrome."

CARDIO-VASCULAR DISTURBANCE

The response to effort or to unusual excitement, such as is seen under war conditions more or less constantly, is abnormal, and the chief manifestations are of cardio-vascular disturbance. We are all aware that some people "go to pieces" in emergencies much more readily than do others who seem to be essentially no more normal. If two men run to catch a train one may be merely "puffing a little," while another, under ordinary conditions to all appearances quite as healthy as his fellow, will be dizzy and faint, with marked dyspnea or even acute precordial distress. If the second man is alarmed at these symptoms and consults a physician, attention will usually be centered upon the cardiovascular signs and the possibility of a mild hyperthyroidism not be considered. Yet a basal metabolism test done at this time would immediately reveal the true condition or would put the blame where it belonged, if the thyroid were not responsible.

Incipient pulmonary tuberculosis is another condition which may suffer confusion with hyperthyroidism, although this is less common than with neuro-circulatory asthenia. At the onset of a tuberculous infection there may be nothing to direct attention to the lungs. Marked decrease of weight with no decrease in appetite, accompanied by loss of strength so that the patient complains of being "tired all the time," is strongly suggestive of mild hyperthyroidism. If a basal metabolism test gives a normal result, the usual diagnostic test for tuberculosis will be in order. But in my personal experience it is far more likely to be the other way about; that is, mild hyperthyroidism will be called tuberculosis and not until the patient has been under treatment and investigation for some time will it finally be established that he is not tuberculous.

Tuberculosis in all its forms is definitely a disease attacking the young. Hyperthyroidism is more likely to be manifest in those over 30. We do not expect to see either disease make its first appearance in those well past middle life. Yet hyperthyroidism has been recognized in individuals as old as 65 or 70, and very likely occurs oftener than we are aware, because such findings as loss of weight, decreasing physical strength, tremor and cardiac insufficiency will all be attributed to the natural results of senility. McMillan and Wendkos⁴ reported such a case, where

a generalized arteriosclerosis dominated the clinical picture and the auricular fibrillation and fluctuations in weight were all at first attributed to the debility enforced by age. These authors emphasized the necessity of complete investigation of the etiology of all "heart disease." In looking for the fundamental cause of any abnormal cardiac manifestation, an existing but latent hyperthyroidism would soon be unmasked.

The same might be said of blood-pressure changes. The blood-pressure in disturbances of the thyroid gland tends to be proportionate to the increase or decrease in the metabolic rate. In exophthalmic goiter the vascular alterations are similar to those of aortic insufficiency but less in degree. The pulse is rapid and collapsible, the normal difference between the peripheral and central systolic pressure is exaggerated, and the pulse pressure is increased at the expense of the diastolic. In the lower extremities, the blood-pressure will be found to be greater than in the arms and hands.

SUMMARY

I have tried to indicate some of the most common causes of confusion in attempting to establish a diagnosis of hyperthyroidism. The most important thing to emphasize is the possibility of thyroid imbalance even where the symptoms are vague or altogether misleading. The basal metabolism test will answer our question in nearly all cases, but the question must be asked before it can be answered. Laboratory tests are of great assistance, and in some cases may be termed indispensable. Yet without careful interpretation of the history and clinical findings their aid may never be sought; so that, in the last analysis, successful differential diagnosis must depend upon the wisdom and good judgment of him who undertakes to establish it.

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Abdominal Pain on Locomotion in Rheumatic Disease

It is general experience that cardiac lesions imputed to past rheumatic infections are discovered in later life without apparently adequate confirmatory historical data. It is doubtlessly true that the disease may be of such low-grade character as to cause either a lack of symptoms or seemingly inconsequential complaints soon forgotten. However, a not inconsiderable number of these cases demonstrate symptoms if carefully sought for. Moreover, symptoms not previously attributed to rheumatic infections are neglected by the historian.

The latter is not of extreme importance per se, since by the time valvular deformity is found, it cannot be altered, although the individual may be guided into suitable channels. But when we consider that valvular lesions such as mitral stenosis are not infrequently missed by the examiner, the importance of any symptom as a suspicion arouser is certainly unquestioned. On the other hand, attention paid even to the slightest symptom will put the physician on his guard so that prevention may be practiced despite the present meager facilities in that direction.

An interesting symptom in low-grade active juvenile rheumatism, seen frequently enough to merit attention, has been reported by the essayists and H. E. Goldberg (*Arch. Ped.* 53:457-464, August, 1938). Its close association with the active phases of this disease was stressed. It has been pointed out that while this symptom may be a part of the clinical picture, it may at times be the only complaint in instances where permanent cardiac deformity results.

A study of adult patients with rheumatic valvular lesions whose past medical histories appeared to be negative were studied from this standpoint. Ten such cases were found among 112 patients. It seemed unlikely that a disease as crippling as rheumatic infection should present a relatively high proportion of negative histories. Five of these patients had abdominal pain on locomotion. All had permanent valvular disease—4 with mitral stenosis of which 3 had also insufficiency, and one with aortic insufficiency. Three were males and two were females. None had any of the acute manifestations of rheumatic disease. All were previously considered cases of rheumatic disease with negative past medical histories. It would seem that while some symptoms escape the attention of the patient, others undoubtedly escape the observer because of the lack of correlation between perhaps obscure and little known symptoms and the disease state.—Victor A. Digilio, M.D., and Joseph A. Pestacore, M. D., Philadelphia, Pa.; *Pa. Med. Jour.*, Vol. 43, No. 1, January, 1940.

Jaundice appearing in the course of syphilitic treatment or within three months following the conclusion of the treatment is in most cases toxic jaundice due to the action of arsenic on the liver. If not recognized as such and further arsenical treatment is given, icterus gravis (acute yellow atrophy) may follow.—Henry G. Hadley, M.D., Washington, D. C.; *Medical Record*, Vol. 150, No. 10; November, 1939.

Cesarean Section

A Study of 262 Cases from St. Ann's Maternity Hospital, Cleveland, Ohio

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ALTHOUGH cesarean section is one of the most ancient of surgical procedures, and its value as a life-saving measure is universally recognized, obstetricians still are by no means in accord and agreement concerning its use in actual practice. The principal differences of opinion concern the indications for the operation, the risks involved, and the technic employed. Since the best way to evaluate and appraise opinions is to study the facts, it has seemed worth while to review and analyze the records on cesarean section at St. Ann's Maternity Hospital. The report here presented covers the last 13 years, 1926 to 1938 inclusive.

INCIDENCE

In Table 1 are presented the annual figures for 1926 to 1938, showing the number of births, the number of sections, and the percentage inci-

Table 1.

ANNUAL INCIDENCE OF CESAREAN SECTIONS

Year	Births	Sections	Ratio	Percentage
1926	1,368	25	1:54.7	1.8
1927	1,400	33	1:42.4	2.3
1928	1,300	28	1:46.4	2.1
1929	1,288	22	1:58.5	1.7
1930	1,303	13	1:100	1.0
1931	1,275	19	1:67	1.5
1932	1,051	10	1:105	0.95
1933	963	12	1:80	1.2
1934	1,022	14	1:73	1.3
1935	1,032	21	1:49	2.0
1936	1,053	22	1:47.8	2.1
1937	1,409	26	1:54	1.8
1938	1,534	17	1:90	1.1
Total	15,998	262	1:61	1.6

dence of the latter. During this period, there were 15,998 deliveries in the hospital, and 262 cesarean sections, an incidence of 1.6 per cent. The figures here presented include cases attended by the entire staff of St. Ann's Hospital, which is composed of visiting obstetricians.

The incidence of cesarean sections (1.6 per cent) in this group of cases is somewhat lower than in most published series. At the Chicago Lying-In Hospital¹ for a period of 15 years ending in 1929, there were 874 cesarean births in 32,797 deliveries, an incidence of 2.8 per cent. The total number of deliveries on this service, including those in the out-patient department, was 51,323. The incidence of cesarean births in this larger group was 1.5 per cent. Daily² reported another series from the Chicago Lying-In Obstetrical service in which there were 500 cesarean sections in a total number of 17,493

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cases, an incidence of 2.86 per cent. Of this number, 8,871 were delivered in the hospital, making the incidence of cesarean sections in this group 5.6 per cent.

In 15,136 obstetrical admissions at Michael Reese Hospital³ there were 381 sections, or 2.52 per cent. Duncan and Doyle,⁴ in reporting a ten-year survey at Boston City Hospital, showed 703 sections in 22,880 cases, a percentage incidence of 3.07. Courtiss and Fisher⁵ reported the incidence of cesarean sections in a series of 31,613 cases as 1,257, or 3.9 per cent during a period of 20 years at the Boston Memorial Hospital. According to Lynch,⁶ 0.76 per cent of all births in the United States in 1934, and 2.8 per cent of hospital births in the same year were by cesarean section.

In Cleveland, during 1937, the 13 member hospitals of the Hospital Obstetrical Society⁷ reported 11,631 deliveries, with 3.9 per cent cesarean sections. In the individual hospitals comprising this group, the incidence of cesarean births ranged from 0.26 per cent to 8.5 per cent. There are a number of factors, aside from differences in the criteria adopted as indications for the operation, to account for the variations, including

Table 2.

AGE OF PATIENTS

Age	Cases	Percentage
Less than 15	1	0.4
15 to 19	13	5.6
20 to 24	48	17.7
25 to 29	66	25.6
30 to 34	78	29.5
35 to 39	37	14.5
More than 40	18	6.8
Average age—29 years		

number of cases in the series, the higher proportion of complicated cases in some hospitals, etc.

AGE

Table 2 shows the distribution of the 262 patients who underwent cesarean section, according to age. The average age of the mothers in this.

group was 29 years; this is somewhat higher than the average age of patients who had uncomplicated deliveries during the same period. It is interesting to note also that approximately one-fifth of the women who had cesarean sections were more than 35 years of age.

NUMBER OF PREGNANCIES

Of the 262 patients who underwent cesarean section, 112 were primipara and 150 were multipara. Of the latter, 36, or 24 per cent, had borne one or more dead infants by vaginal delivery.

NUMBER OF SECTIONS

In the series of 262 cases, 190, or 72.5 per cent of the operations were first cesarean sections, 50, or 19 per cent were second sections, and 16, or 4 per cent were third sections. Patients who underwent fourth, fifth, and sixth cesarean sections numbered three, one, and two, respectively.

It is apparent from these figures that women subjected to abdominal delivery tend to avoid subsequent pregnancies. "Once a section, always a section" is not an absolute rule, but few women who have once been delivered by abdominal route are allowed to carry through subsequent labors without interference.

Many obstetricians recommend sterilization at the second or third section. Some hold to this opinion so vehemently that they regard it as criminal negligence to permit additional pregnancies in such a case. In this series of cases, sterilization has not been performed in a single instance. Among the six patients who have undergone multiple sections, there have been no serious surgical complications and no fetal nor maternal deaths.

INDICATIONS

Table 3 presents the indications for cesarean section in the 262 cases. In some instances, more

Table 3.
INDICATIONS FOR CESAREAN SECTION

Reason for section	Cases	Percentage
Contraction of pelvis	133	50.7
Previous section	27	10.3
Placenta praevia	26	9.9
Ablatio placenta	18	6.8
Pre-eclampsia	13	4.9
Elderly primipara	8	3.2
Heart disease	9	3.5
Eclampsia	6	2.3
Pelvic tumor	4	1.6
Infantile paralysis in childhood	4	1.5
Cervical stenosis	2	0.8
Miscellaneous conditions*	12	4.5

*These included one case each of pulmonary tuberculosis, ankylosis of hip, fractured pelvis, congenital dislocation of hip, previous plastic operation, previous osteomyelitis of hip, fibroids, prolapsed uterus, repeated hematemeses, hyperemesis gravidarum, previous difficult labor, and acute infection in ab omen.

than one indication was present, but an effort has been made to classify the section under the primary indication. In the group with contracted

pelvis, those who were subjected to a subsequent section were listed under the same classification. Some patients, however, had had the original section in other hospitals and in other states, and when additional sections were performed in this hospital, it seemed more logical to classify the indication as a previous section, especially when, according to the history, the primary section had been occasioned by placenta praevia or pre-eclampsia. It may be of some significance that 12 of the 18 cases of ablatio placenta occurred within the past four years. No eclamptics were subjected to cesarean sections during the last six

Table 4.
TRIAL LABOR

Duration (hours)	Cases	Percentage
Less than 8	6	10.7
8 to 12	6	10.7
12 to 16	3	5.3
16 to 20	6	10.7
20 to 24	12	21.4
24 to 32	7	12.5
32 to 36	5	8.9
36 to 40	3	5.3
40 to 48	5	8.9
48 to 56	3	5.3
Total	56	21.3

years. Contrary to the opinion of some obstetricians, the members of our staff regard the eclamptic as a very sick patient, presenting a poor surgical risk.

Atrophy of the uterus following infantile paralysis is not generally recognized as an indication for cesarean section. In one case in this series, there was an apparent hemiatrophy of the uterus, as the result of poliomyelitis. The right side was not affected, but the left side was but one-fourth the normal thickness. According to Fetterman,⁸ this condition may result from invasion of certain lateral cells in the anterior horn. When the patient has had anterior poliomyelitis, even though there is no apparent involvement of the motor nerves, the physician should be alert to the possibility that the muscularis of the uterus may be so affected as to preclude normal delivery.

TRIAL LABOR

Frequently a reasonable doubt exists as to whether a patient has a contracted pelvis which will necessitate surgical delivery, and in many such instances, the answer can be secured only after trial labor. In making the decision, the physician must always be mindful of the fact that he must consider both the passage and the passenger. Fifty-six of the 262 patients, or 21.3 per cent, underwent trial labor before section was performed (Table 4). Trial labor starts when the pains begin, and in many instances a goodly portion of the elapsed time was consumed by pains that were irregular or light. Active labor was in all cases of much shorter duration than

indicated by the figures in the table, which indicate the time from the beginning of labor pains. A test of labor is two hours in the second stage with the membranes ruptured.

MORBIDITY

The criterion for morbidity, as stated by the American Committee on Maternal Welfare, is "any patient having a temperature of 100.4° Fahrenheit or over recorded on any two days after the first 24 hours."² This standard has a useful function in determining the presence of infectious complications, but it fails to indicate many of the serious and even fatal sequelae, including hemorrhage, heart failure, and toxemia. Hence in this study it seems best to discuss morbidity in terms of actual complications.

Complications arose following cesarean section in 10 per cent of the patients who ultimately recovered. This group included nine cases of cicatricial infection, four of phlebitis, three of pyelitis, three of postoperative ileus, and one each of pleurisy, bronchitis, parotitis, and postpartum psychosis.

The average stay in the hospital of these patients was approximately a week longer than that of those with no complications. The average for the former was 21 days, and for the latter, 14 days.

TYPE OF OPERATION

In this series, the classical abdominal section was performed in a preponderant number of cases, so it is impossible to elicit any statistical information of value by comparing the results following this and the low cervical section, which was performed in but a few cases. In Cleveland, the use of the classical section predominated until 1935. Since then, the cervical section has been used increasingly. The records of the Cleveland Hospital Obstetrical Society show that, in 1937, the low cervical operation was performed in 59 per cent of all cesarean sections. At the present time, this technic is being employed by the majority of the members of St. Ann's staff, so within a few years, the records will be of some value in comparing the results of the two types of operation.

MORTALITY

Plass,⁹ who has estimated the maternal mortality following cesarean section as nearly 10 per cent (25,000 sections performed in the country and 2,500 deaths therefrom each year) says, "A diminished cesarean section incidence would result in bringing our national maternal mortality rate down more nearly to that of other countries where vaginal delivery is more common, and where the physiological character of labor is better appreciated".

Von Ammon's¹⁰ statistical summary of the results of cesarean section by 35 authors showed

222 deaths in 5,365 sections, a gross mortality rate of 4.1 per cent. The report of the Cleveland Hospital Obstetrical Society for 1937 showed 450 cesarean sections with 14 deaths, or 3.12 per cent mortality. Ten of these fatalities followed classical sections.

The number of maternal deaths in the 262 cases from St. Ann's Hospital, for the thirteen-year period surveyed, was 12, or 4.5 per cent. These 12 deaths represented approximately one-sixth (15.8 per cent) of the total number of maternal deaths at this institution during the same period. The salient data on the cases with fatal outcome, showing the reason for the section, and the cause of death in each instance, are presented in Table 5. The most striking feature

Table 5.
DEATHS FOLLOWING CESAREAN SECTION

Age of Patient	Para	Reason for Section	Cause of Death	Time of Death
38	I	Trial labor (50 hr.)	Acute peritonitis	10 days
30	I	Trial labor (36 hr.)	Peritonitis and paralytic ileus	3 days
41	IV	Trial labor (36 hr.)	Paralytic ileus	5 days
40	I	Trial labor (14 hr.)	Intestinal obstruction	5 days
31	I	Trial labor (36 hr.)	Intestinal obstruction	7 days
25	I	Trial labor (34 hr.)	Septicemia, peritonitis, paralytic ileus	9 days
25	I	Ablatio placenta	Shock, exsanguination	2 hours
38	VI	Ablatio placenta	Paralytic ileus	7 days
33	I	Ablatio placenta	Shock exsanguination	7 hours
28	I	Heart disease (Persistent tachycardia)	Hepatic necrosis (No organic heart lesion at necropsy)	4 days
24	III	Elective section (Difficult labor at first and section at second pregnancy)	Paralytic ileus	4 days
30	II	Elective section (Previous difficult labor with dead fetus)	Peritonitis	13 days

of this table is the glaring proof that protracted trial labor greatly increases the risk of a cesarean section. Of the 56 patients who had trial labor, six, or 10.7 per cent, died following cesarean section.

FETAL MORTALITY

The infant mortality in this series of cases has been tabulated according to the cause of death, and its relation to the section. (Table 6). In 18 instances of ablatio placenta, the fetal mortality was 13, or 72 per cent. In all instances in which the separation of the placenta was extensive or complete, and in some cases of partial separation, the fetus died.

Most of the fetal deaths in the cases of placenta praevia were due to prematurity. Cesarean section was performed for placenta

praevia in 23 cases, in four of which the infants did not survive.

The gross fetal mortality for the entire series was 28 cases, or 10.6 per cent. If the premature

Table 6.
FETAL DEATHS FOLLOWING CESAREAN SECTION

No. of Cases	Reason for Section	Condition of Fetus	Age of Fetus
7	Ablatio placenta	Stillborn	Premature (5 to 8½ mo.)
3	Ablatio placenta	Stillborn	Term
3	Ablatio placenta	Respiratory failure	Term
3	Placenta praevia	Stillborn	Premature (6½ to 7½ mo.)
1	Placenta praevia	Pulmonary atelectasis	Term
2	Fetal disproportion	Hydrocephalus	Term
1	Fetal disproportion	Microcephalus	Term
1	Contraction of pelvis	Stillborn	Term
1	Contraction of pelvis	Congenital heart disease	Term
1	Contraction of pelvis	Respiratory failure (Lived 2 hours)	Term
1	Pre-eclampsia	Macerated	Premature
1	Maternal heart disease	Stillborn	Term
1	Pelvic tumor	Respiratory failure	Term
1	Uterine fibroids	Stillborn	Term

and macerated fetuses and those with congenital abnormalities were omitted, the infant mortality would be 4 per cent.

POST-MORTEM CESAREAN SECTION

In addition to the cases of cesarean section included in this report, seven such operations have been performed after the death of the mother. In one such case, a cesarean section performed after the death of the mother from cardiac failure produced a live infant, who survived. In the other six cases, the fetus was dead when removed.

SUMMARY

During a thirteen-year period (1926 to 1938 inclusive), 262 cesarean sections (1.6 per cent) were performed by the members of the staff of St. Ann's Hospital, Cleveland, in 15,998 deliveries. The average age of the mothers in this group was 29 years, and approximately one-fifth of them were more than 35 years of age. There were 112 primipara and 150 multipara, and of the latter, 36, or 24 per cent, had borne one or more dead infants by vaginal delivery.

One hundred and ninety, or 72.5 per cent of the 262 operations were first cesarean sections; 50, or 19 per cent were second sections; 16, or 4 per cent were third sections. Patients who underwent fourth, fifth, and sixth cesarean sections numbered three, one, and two, respectively.

Approximately one-half the sections were performed because of contracted pelvis (133 cases).

Previous section (27 cases), placenta praevia (26 cases), and ablatio placenta (18 cases) were prominent among the reasons for cesarean delivery. Fifty-six operations in this series were performed after an initial trial labor.

Postoperative complications occurred in 10 per cent of the patients who ultimately recovered. These included infection of the wound, phlebitis, pyelitis, postoperative ileus, pleurisy, bronchitis, parotitis, and post-partum psychosis. The period of hospitalization of patients with complications averaged one week longer than in uncomplicated cases.

Most of the operations in this series were classical sections, since the low cervical section has been used widely in this hospital only since 1935. Hence the data reviewed yield no cogent information concerning the relative merits of the two technics.

There were 12 maternal deaths among the 262 cases, a mortality rate of 4.5 per cent. These 12 deaths represented approximately one-sixth (15.8 per cent) of the total number of maternal deaths in the 15,998 cases delivered at St. Ann's during the same period. The record of these 12 deaths offers glaring proof of the dangers of trial labor, since six of the patients had undergone labor for considerable periods before the section was performed.

The gross fetal mortality was 28 cases, or 10.6 per cent. If the premature and macerated fetuses and those with congenital abnormalities were omitted, the infant mortality would be 4 per cent.

In addition to the reported series, seven cesarean sections were performed on dead mothers. In one instance, the operation performed after the mother had died of heart failure produced a live infant who survived. In the other cases, the fetus was dead.

Carnegie Medical Bldg.

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A Comparative Study of Serum and Sulfapyridine In the Treatment of Lobar Pneumonia

ULYSSES G. MASON, M.D., and JOSEPH B. STOCKLEN, M.D.

IN an attempt to compare the therapeutic value of anti-pneumococcus sera and sulfapyridine in the treatment of lobar pneumonia a series of 66 adult patients were treated on the Medical Service of Cleveland City Hospital in the period from February 1 to May 31, 1939. In no case was the pneumonia of more than 120 hours duration. On admission each patient had an X-ray of the chest, a blood culture was taken, determinations of the icteric index and the B.U.N. were made in addition to routine blood counts, sputa and urine tests. There was no selection of patients. Alternate cases received serum and sulfapyridine respectively, except in some instances in which typeable pneumococci were not found in the sputum or by lung suction. The patient was then given sulfapyridine.

TYPES OF ORGANISMS

Effort was made to identify the organism causing the pneumonia in each case. Typeable pneumococci were found in 72.7 per cent of the cases. In the others, hemolytic streptococci, green streptococci, pneumococci that did not type, and mixed flora were recovered. The types of organisms recovered are shown in the table below.

TYPES OF ORGANISMS

Type of Organism	In Serum Treated Patients	In Sulfapyridine Treated Patients	Total Number of Each Type
Pneumococcus Type I	9	5	14
Pneumococcus Type II	10	2	12
Pneumococcus Type III	3	3	6
Pneumococcus Type IV	2	1	3
Pneumococcus Type V	0	1	1
Pneumococcus Type VII	4	8	7
Pneumococcus Type VIII	3	0	3
Pneumococcus Type XIV	2	0	2
Streptococcus Hemolyticus	0	8	8
Pneumococcus Untypeable	0	7	7
Streptococcus Viridans	0	1	1
Mixed Flora	0	2	2

BLOOD CULTURES

There were six patients with positive blood cultures in the group treated with serum, and

From the service of Dr. R. W. Scott, Chief of the Medical Division, Cleveland City Hospital.

Presented to the Staff of Cleveland City Hospital, May 23, 1939.

The Authors

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● Dr. Stocklen, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1930; resident physician at Sunny Acres Sanatorium.

three of these died. One patient while recovering from a type I pneumococcus pneumonia developed hemolytic streptococcus septicemia following embolism of the right popliteal artery, and he died. In the other two fatal cases bacteremia was due to type I and type II pneumococcus respectively. Type II pneumococcus was recovered in two instances and type VII in one instance from the blood of the three serum treated patients who survived bacteremia.

None of the patients in the group treated with sulfapyridine exhibited bacteremia. We have no explanation for this fact. However, it should be emphasized that no attempt was made to select patients.

CLINICAL OBSERVATIONS

The average age for the serum and sulfapyridine treated groups was 42.8 and 40.1 years, respectively. Thus the patients treated with serum were a trifle older than those treated with sulfapyridine.

In the group of patients treated with serum the mean duration of the pneumonia before initiation of treatment was 71.5 hours, and in the group treated with sulfapyridine, it was 76.5 hours.

Sulfapyridine was approximately twice as effective as serum in producing defervescence by crisis. In 37 per cent of the cases treated with serum, fever subsided by crisis, compared with 73 per cent in the sulfapyridine treated cases.

Length of hospitalization was definitely shorter in the group of patients receiving sulfapyridine. Serum treated cases averaged 19.3 days in the hospital as compared with 15.9 days for those treated with sulfapyridine.

Complications were observed in both groups but were less frequent in the group treated with sulfapyridine. Three patients in the serum

treated group exhibited complications. The first one had a sterile pleural effusion. The second one had an empyema necessitating surgical drainage. Both of these recovered. The third serum treated case developed embolism of the right popliteal artery and died. In only one patient in the sulfapyridine treated group did a complication occur, and this was a lung abscess which healed without surgical intervention.

TREATMENT

All serum was diluted with saline and administered intravenously; 215,000 units of serum was the average amount used per patient, and this cost \$70.07.

Sulfapyridine was administered exclusively by mouth. Two grams were given initially, followed by one gram every four hours for five doses, followed by one gram every six hours for 16 doses, making a total of 23 grams in five days. Blood levels of the drug usually ranged between 2 and 9 mgs. per cent on this routine. The cost of sulfapyridine per patient averaged \$3.03.

REACTIONS

Four patients showed immediate reactions to serum, and seven developed delayed reactions, but none of these were serious.

No severe reactions were encountered following the administration of sulfapyridine. Nausea and vomiting occurred in 13 cases but were not severe enough to necessitate complete withdrawal of the drug. Cyanosis which could unquestionably be ascribed to the drug was observed in one case. Leukopenia, hematuria, hemolytic anemia, nitrogen retention and jaundice did not occur.

The table below summarizes the results of treatment in the two groups of cases in terms of mortality per cent. The figures are self-explanatory and require no further comment.

MORTALITY STATISTICS

Treatment	Number of Cases	Number Dead	Mortality Percent	Combined Mortality Percent
Serum	33	6	18.2%	9.1%
Sulfapyridine	33	0	0.0%	

DISCUSSION

The two groups of patients, differently treated were closely comparable as to the duration of disease and age. Even though bacteremia was not observed in the group of patients treated with sulfapyridine, the value of sulfapyridine in the treatment of lobar pneumonia in this series seems to be definitely established as indicated by the mortality statistics presented above. We have had limited but favorable experience in the treatment of lobar pneumonia with sulfapyridine and serum combined, but on the basis

of investigation by others it is probable that such a combination is more effective than either agent alone. Until more is known concerning the toxicity of sulfapyridine, patients receiving this drug should be observed very carefully for toxic reactions.

In view of the limited number of cases in this series and the dissimilarity in the kinds of etiological agents in the two differently treated groups of pneumonia patients, we do not feel that definite conclusions as to the comparative value of sulfapyridine and serum are justified. However, these facts have been presented for whatever value they may have as a contribution to the treatment of lobar pneumonia.

SUMMARY

1. Alternate cases in a series of 66 patients with lobar pneumonia were treated with serum and sulfapyridine respectively. Analysis of the management of these cases was made.
2. The mortality rate for the group treated with serum was 18.2 per cent. There were no deaths in the group treated with sulfapyridine.

Infectious Mononucleosis

The symptomatology, diagnosis and differential diagnosis of infectious mononucleosis have been reported in detail. A case, representing all the characteristic symptoms and laboratory findings of infectious mononucleosis, complicated by jaundice and bronchial asthma is described.

Considering the generalized swelling of lymph glands in infectious mononucleosis, it is believed that the jaundice and bronchial asthma in the case reported were caused by swelling of lymph nodes around the bile ducts and bronchial tree.

Treatment with sulfanilamide in this case produced a rapid recovery with disappearance of all visible lymph nodes, jaundice and asthma. Laboratory findings, including icterus index, Van den Bergh, white blood count, differential count show normal results within ten days after beginning of medication.—M. Bernreiter, M.D., Kansas City, Mo.; Jour. Kansas Med. Soc., Vol. XXXIX, No. 12, December, 1938.

The lack of decline in the mortality from tuberculosis in young females seems to be due to increased generative and maternal activity. The task of protecting young women is a medical one and not to be solved by preventing pregnancies but by alleviating the dangers connected with child-bearing and by improving the external conditions during the hardest time in a woman's life. Vital statistics have a practical value if we discover the biological significance behind the figures.—Geo. Wolff, Amer. Jour. Hyg., November, 1939.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

SPONTANEOUS PNEUMOTHORAX

ROBERT CHARR reports 10 cases of fatal spontaneous pneumothorax. All cases were in the third and fourth decades of life; six were males and four females. Eight had pulmonary tuberculosis and two anthracosilicosis.

"In all, the onset of the pneumothorax was sudden, and it occurred while the patients were in bed. In none of the cases severe coughing, sneezing or any other form of physical exertion preceded the fatal accident. The chief complaints were dyspnea and pain in the same side of the chest as the pneumothorax. All showed cyanosis, clammy skin, weak pulse, dry mucous membrane of the mouth with thirst and apprehension of impending death."

At necropsy, it was found that in seven of the cases the pulmonary rupture was in the mid-axillary aspect of the upper lobe and in three it was on the anterior surface about the mid-clavicular line. In two of the latter group the rupture was in the upper lobe and in one in the lower lobe. In all the perforation was either in the front or the axillary region of the lungs—in none on the posterior surface of the lung.

"In three cases with the rupture on the anterior surface of the lungs, the perforation took place through the center of large and acutely caseous tuberculous nodules, measuring about 1.5 cm. in diameter. The visceral pleura covering them was thin and transparent without adhesions to the adjacent parietal pleura. Following the ruptures deeper into the lungs led into irregularly shaped and acute cavities in the center of caseous consolidation. The cavities varied in size and were located in the anterior half of the lungs. Projecting into the cavities were several stumps of bronchi and many cord-like structures criss-crossing the cavities, which on section proved to be the remnants of lung tissues. Excursion of the air through these bronchial stumps was free. When the air was rapidly pumped into the main bronchi, the perforated visceral pleura covering the caseous nodules ballooned out remarkably. The surface distribution of the caseous tubercles in these three cases was interesting. Practically all the acutely caseous tubercles were on the anterior portions of the lungs. The posterior parts showed principally congestion and areas of gelatinous pneumonia.

"In seven cases with the ruptures in the axillary region, the character of the ruptures differed from those already described. In none did the perforation take place through the center of caseous tuberculous nodules as in the previous

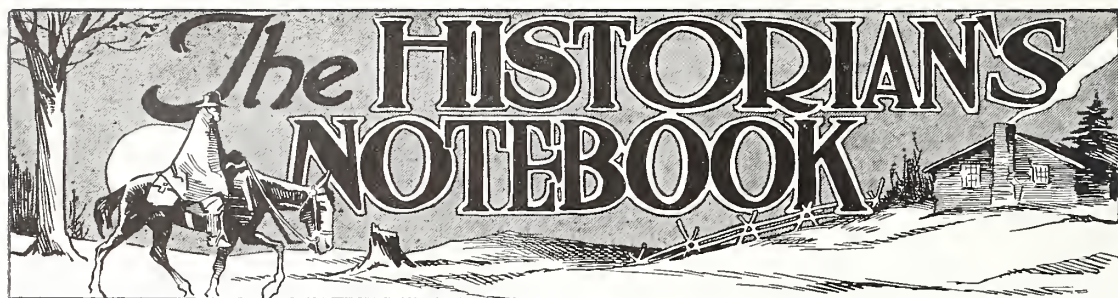
cases. There was much pleural thickening about the ruptures. The tuberculosis which was present in all excepting two anthracosilicotic cases was chronic in form with considerable fibrosis throughout the lungs. Although there were scattered caseous tubercles, many of them showed, on histological examination, fibrous capsules surrounding them. Furthermore none of these cases showed superficial tubercles as acutely as those in the first three cases."

It seems that the immediate cause of the pulmonary rupture in these seven cases may have been tugging on the pleural adhesions. There is considerable vertical excursion of the lungs due to the greater depth of the costophrenic angle at that point. The sliding motion of the lung upon the inner surface of the thorax is probably most marked along the axillary aspect of the chest, which, if that is the case, accounts for the marked tugging movement on the pleural adhesions along the axillary region.

The absence of pulmonary rupture on the posterior aspect of the lungs confirms the belief that the cause of spontaneous pneumothorax is largely a mechanical one. The front and the axillary portions of the thorax move more in respiration than the posterior parts where the ribs are attached to the spinal column. These factors of chest movement may be more pronounced when a person lies on his back.

The left side is more frequently involved than the right, the percentage being approximately 60 on the left and 40 on the right. Various theories have been advanced to account for leftsided preponderance but there seems to be no doubt that the heart action produces an additional pulmonary mobility on the left side.

Spontaneous pneumothorax occurs in diseases other than tuberculosis. In the author's present series, two cases had far advanced anthracosilicosis uncomplicated by tuberculosis. In one of these there were large emphysematous blebs in the midaxillary region of the upper lobes, rupture of which very likely produced the pneumothorax. Over these blebs the visceral pleura was considerably thickened, but the microscopical examination of the walls of the blebs showed extreme thinning of the elastic layer and at several points there was an actual breach in the continuity of the elastic lamina. In the other case the perforation of the lung was due to an extension of a cavity located in the center of a large anthracosilicotic mass in the right upper lobe.—Robert Charr, *Amer. Rev. of Tuber.*, Vol. XL, No. 5, Nov., 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

The Doctor as Musician

EDWARD PODOLSKY, M.D.

APOLLO was the god both of medicine and music. The priest-doctors of ancient Egypt and the medicine-men of the Indian tribes were also musicians. They used both music and medicine to heal the sick of mind and body.

All the ancient peoples knew of the healing power of music. They had a musical healing treasury of great worth. Now, after thousands of years, the names of Sarpander, Arion and Zenocrates are still known as men who made good use of music in healing disease.

There has always been a sympathetic relationship between music and medicine and between doctors and musicians. Many medical men have contributed as much to the development of music as of medicine. Among the earliest of noted English composers was George Ethridge who lived during the 16th century and was one of the most famous vocal and instrumental musicians of his day. He was a graduate of Oxford and a physician of great ability. Towards the end of the 16th century Sir Thomas Gresham established a professorship of Music at Oxford. Curiously enough, the first five men to hold this chair were all physicians. They were masters of both arts.

Among the earliest composition extant by medical men are those by Thomas Campion. Campion was born in London on February 12, 1567. His early interests lie in medicine and he took his M.D. at Cambridge. Following his graduation he took part in Lord Essex's expedition which landed at Dieppe in 1591 and laid siege to Rouen. As a physician he gained admission to the London Tower to visit his friend Sir Thomas Manson who was accused in the complicity of the murder of Sir Thomas Overbury.

After his military adventures Campion became very much interested in music. The first of his musical compositions was "A Book of Ayres Set Forth to Be Sung to the Lute Orpherian and Base Violl." This appeared in 1601. Three more books of airs followed within the next 16 years.

Dr. Campion also wrote several masques, both

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words and music, for special occasions. Among these was a masque performed at Whitehall in Twelfth Night, 1607, in honor of Sir James Hay. Another masque was performed in 1613 at the Banqueting House in Whitehall at the marriage of Frederick Balantine with the Princess Elizabeth, for one song of which he wrote the music. In the same year he wrote a masque for an entertainment in honor of Queen Anne, wife of James I, and other masque by him was performed on the occasion of the marriage of the Earl of Somerset and Lady Francis Howard.

Dr. Campion was also a musical theorist of note. His "New Way of Making Four Parts in Counterpart by a Most Familiar and Infallible Rule," published shortly before his death, went through many editions. He died on March 1, 1616, and was buried at St. Dunstan's.

Probably the most famous of the early English doctor-musicians was Henry Harington. His "Great Is the Pleasure" is one of the most popular of musical compositions and it has been played and sung in all quarters of the globe. He was born in Kelston, Somerset, England, on September 29, 1727. In 1745 he entered Queens College, Oxford, with the intention of taking holy orders. He used to pass his vacations with his uncle, William William, vicar of Kingston, Wilts, from whom he inherited a taste for music. In 1748 he took his A.B. and shortly thereafter gave up his intentions of taking holy orders.

Harington thought that medicine offered a more attractive career and for this reason he remained at Oxford, taking his M.A. and later his M.D. But his love for music was already mani-

fested in many ways. While at Oxford he joined an amateur musical society established by Dr. W. Hayes to which only were admitted those who were able to play and sing.

When he left Oxford, Harington entered medical practice at Bath. All his leisure time was devoted to music and composition. He was, in time appointed "composer and physician" to the Harmonic Society of Bath on its foundation in 1784 by Sir John Davies.

Two books in folio of Dr. Harington's glees were issued in 1785. Later other glees followed. In 1800 he published "Eloi! Eloi! Or the Death of Christ," a sacred dirge for passion week.

Harington was also much interested in civic affairs. He was first alderman of Bath and later Mayor of that city. His compositions were distinguished for originality, correct harmony and tenderness.

Another famous doctor-composer of the 18th century was William Kitchner. He was born in London in 1775, the son of a coal merchant from whom he inherited a comfortable fortune. He was educated at Eton and Glasgow where he received his M.D. But his interests lay mainly in music. He composed an operata, "Love Among the Roses." He was also the author of a musical drama, "Ivanhoe."

Dr. Kitchener was also the author of "Observations on Vocal Music" and editor of the "Loyal and National Songs of England, the Sea Songs of England," and "A Collection of Vocal Music in Shakespeare's Plays."

Literature was another field in which Dr. Kitchener distinguished himself. He was the author of some rather unusual literary works, among them, "The Cook's Oracle," "The Art of Invigorating and Prolonging Life," "The Housekeeper's Ledger," "The Economy of the Eyes" and "The Traveler's Oracle." His medical views were rather eccentric, but his music was wholesome and pleasing.

By no means were the doctor-musicians all English. Florient Cornielle Kist was among the most famous of Dutch musicians. He was born at Arnheim, Holland, on January 28, 1796. He took his M.D. at the University of Leyden and from 1818 to 1825 he practiced medicine at the Hague. He was a flutist and cornetist of great ability, and among the greatest compositions written for these two musical instruments are to be found many by Kist.

Dr. Kist was a founder of the Diligentis Society at the Hague and later of the Caechilia which is still the most important musical society in Holland. He was also the founder of the Choral Union and Collegium Musicum at Delft.

In 1814 he settled at Utrecht where he became the director of the Netherlands Musical Times which he edited for more than three years. Dr.

Kist wrote many cantatas and vocal compositions which were extremely popular in their day. His influence on Dutch music is profound. He was one of the most important of all Dutch musicians and composers.

Perhaps the greatest of all doctor-musicians was Alexander Porfyriech Borodin. He was the natural son of a Russian prince and was born in St. Petersburg on November 12, 1834. He was educated in medicine and in 1862 was appointed assistant professor of chemistry at the St. Petersburg Academy of Medicine. He was the author of several works on chemistry which attained great popularity.

Dr. Borodin was also very much interested in medical education and he took a leading part in advocating medical education for women. He helped to found the school of medicine for women and he lectured there from 1872 until his death.

But it was as a musician that Dr. Borodin is now known to fame. His interest in music was stimulated in 1862 by his friendship with the great Russian musician, Balakirev. His wife was also very much interested in music and she helped keep this interest alive in her husband. Dr. Borodin was encouraged greatly by Liszt with whom he kept up a long correspondence.

Borodin's first symphony was written in 1862-1867 and this won favorable notice at once. His greatest musical composition was the opera, "Prince Igor" which he began in 1869 but left unfinished at his death. It was completed by Rimsky-Korsakov and Glazounov in 1889. This attained great popularity in Russia while its brilliant Polovtsienne dances became famous throughout Europe as a consequence of the performance of the Diaghilev Ballet.

In the field of music Borodin's symphonic sketch, "In the Steppes of Central Asia" is well known. His second symphony in B minor is of the first rank. He also wrote part of a third symphony, a couple of quartets and many delightful songs.

Dr. Borodin's total musical output is not very large, but it represents among the greatest musical work of all time. He is at this date one of the most popular of Russian composers, and he is heard almost as frequently as Rimsky-Korsakov and Tchaikowski.

Alexander Borodin died in 1887 at the early age of 53. Had he lived longer there is no doubt that he would have taken his place among the greatest composers of all time. He is the greatest doctor-composer, a credit to his two great professions.

The list of doctor-musicians is, unfortunately, a rather small one, but the individual contributions of each man are of the highest order and the greatest importance. Doctors have always been great lovers of music. When they lacked musical talent they contributed in the way of monetary aid in helping to foster this greatest and most useful of the fine arts.

News From the Firing Line

Medical Panorama Reviewed—Status of Wagner Health Bill—President's Hospital Construction Proposal—Activities of Compulsory Insurance Advocates—
What Medical Organization Is Doing—Propaganda Mill Grinds

LIKE business and industry, the medical profession must pause at intervals to take inventory. This would seem to be an appropriate time, therefore, to take stock of current events as they pertain to the social, economic and legislative aspects of the practice of medicine and try to anticipate some of the things in store for the medical profession.

Nothing is a sure thing, except death and taxes. Predictions are dangerous even in normal times. Nevertheless, here are some of the straws in the wind with respect to the 1940 medical panorama, several of which will be discussed more in detail in succeeding paragraphs:

STRAWS IN THE WIND

1. Congress convenes, its eyes on the 1940 elections. Atmosphere more conservative than in recent sessions. Much talk of balancing the budget and curtailing expenditures.

2. Because of Congress' attitude and because the public is beginning to react against additional social experiments and further centralization of governmental activities, there is strong indication that a national health program, such as proposed in the so-called Wagner Bill introduced at the last session of Congress, will be shelved—temporarily, perhaps definitely.

3. Apparently recognizing that the Wagner Bill is not supported by strong public sentiment, is poorly drawn and objectionable, and would be entirely too costly a project for the Federal Government, let alone the various states, President Roosevelt proposes that Congress consider a hospital-building program, to supply hospitals to areas where such facilities are lacking.

4. Present health and medical activities of the Federal Government doubtless will be maintained—slight increases in the appropriations for some, some decrease in the appropriations for others, but for the most part nothing to change the status quo.

5. Renewal of agitation by the American Association for Social Security, with Abraham Epstein as the pilot, for the enactment of state systems of compulsory health insurance, especially in states holding legislative sessions in 1940. Ohio's next session is in 1941.

6. As the presses roll, the public continues to get its steady diet of propaganda for and against this or that proposal or program.

7. Campaign to sell the public on the idea of medical cooperatives under lay control, especially for the low-income groups, becomes more intense. Witness the increased interest and activities of organizations formed to promote medical cooperatives, the Farm Bureau, the C.I.O. and various social service groups!

8. Increased activity by the medical profession through its national, state and local organizations, along progressive lines, in an effort to solve some of the current health and medical problems in a sound, orderly fashion. This is evidenced by the platform recently adopted by the American Medical Association and explorations being made in the field of group medical service, under the guidance of the medical profession, in many states, including Ohio.

* * *

Congress; the Wagner Bill

IN mid-December, *Congressional Intelligence*, a Washington legislative reporting service, informed its readers as follows about the present session of Congress:

"The coming session will mark an eclipse of any new, broad social or economic reform legislation. It is virtually certain that none will be offered with Administration approval; it is more certain that none will get through. It is no secret that the Wagner Health Bill will be shelved, including its occupational disease features, despite the fact that the Murray subcommittee in the Senate will have a new draft of the Wagner Bill ready in about two weeks. * * * Chief reason for dropping these controversial issues is political—politicos sense a conservative trend and want to stop experimenting now. Equally important is to avoid any issue which might delay the length of the session or lead to factional strife while Congress is here."

Similar predictions have been made from time to time by reliable political writers and legislative correspondents stationed in the Capitol. Up to the time this was written, the new Wagner Bill had not made its appearance and all was comparatively quiet on the medical and health front.

* * *

F.D.R.'s Hospital Building Plan

ONE week after the above report was distributed by *Congressional Intelligence*, on December 22, President Roosevelt in a press interview advocated a program for Federal construction of hospitals "in communities of poor states which now lack them and indi-

cated he would recommend the plan to Congress after the Interdepartmental Committee on Health had studied it", to quote *The New York Times*.

"The President rejected the Wagner Health Bill for immediate solution of the problem, declaring it too costly," commented the Washington correspondent of *The Times*. "He said that one trouble with such measures as the Wagner Bill * * * was that the states must match Federal funds in order to obtain projects, which the poorer states could not do. These measures, he observed, would cost great sums."

Commenting on the President's announcement, *The Journal of the American Medical Association* on December 30, saw in Mr. Roosevelt's statement "definite intimation as to his point of view relative to proposed legislation in the field of health" and stated that "the President has recognized some of the objectives of the platform of the American Medical Association". (see page 1336, December issue, *Ohio State Medical Journal*, for A.M.A. platform.)

DETAILS DISCUSSED

Reporting in detail on the plan proposed by the President, *The Journal of the A.M.A.* said in part:

"According to the *United Press*, he said the program, if undertaken, would start modestly but could be enlarged as desired. No estimate of the cost has been completed, but the President emphasized, says the report, that it would cost less than the more extensive health and school programs proposed in bills introduced by Senators Robert F. Wagner, of New York, and Pat Harrison, of Mississippi.

"According to the *United Press*, his comments indicated that he is dissatisfied with both these measures. He said that the Wagner or Harrison bills would cost a lot of money and that the chief trouble was in the requirements for states to match Federal funds. The new program he outlined would provide that the government bear 100 per cent of the hospital construction costs, retain title to the institutions and build them only in areas where local interests offered satisfactory assurances that they would operate and maintain the institutions.

"Under a matched program, Mr. Roosevelt is said to have pointed out, those states which have the most money could obtain the most Federal funds. 'They already have the best hospitals and health conditions, he pointed out,' says the *United Press* report, 'while the poorer states have a lower health level and insufficient funds to obtain Federal money on a matched basis. Since elimination of the PWA 55-45 matched money program, the President said, the Federal Government could afford to finance in a small way medical centers in those areas needing them. He suggested fifty hospitals as a start. The cost of the program he has envisioned would not be great, but it would mark the first experimental steps to bring health facilities to those areas needing them most, he explained. The major part of the work would be done by the WPA as far as possible, he said. The Public Health Service and a committee of doctors would pass on the plans and determine the ability and willingness of localities to operate and maintain the institutions. The President said he had

talked over the plan with a number of doctors and will discuss it soon with the American Medical Association.

"He said doctors from many locales had told him they were unable to raise capital to build hospitals but that if they could get small plants they could maintain and operate them. As outlined by the President, each institution would consist of a one-story hospital building of two wings, one each for white and colored persons, and an administration building with clinic, operating room and laboratory. He estimated that each hospital would provide 100 beds at a cost of around \$150,000. The President emphasized that his program is no grandiose scheme for putting up hospital centers costing \$10,000,000 each and said he did not think the medical association's objections to government health programs would apply to such small hospitals.'"

* * *

A.M.A. Officials Confer With President

PURSUANT to his promise to confer with officials of the American Medical Association on his hospital proposal, President Roosevelt invited representatives of the A.M.A. to the White House early in January for that purpose. Accompanying them were representatives of various hospital groups.

The following account of the conference was published in the January 20 issue of *The Journal of the A.M.A.*

"It is reported that the President indicated again his belief that it is not desirable to enact a program with the cumbersome and expensive aspects of the National Health Program or the Wagner Health Bill, S. 1620, and also that he indicated his belief that the technic of grants-in-aid with matching appropriations might not serve to be helpful to the very areas most requiring assistance. Furthermore, it was the President's proposal that the Federal Government should erect the necessary hospitals but that the requests should come from the areas needing the hospitals and that they should be locally supported and administered. The President also emphasized the experimental and necessarily limited character of this program.

"Previous to the conference with the President, the representatives of the medical profession and of the hospitals in attendance had conferred and prepared a memorandum on the situation, which was left with the President. This memorandum follows:

RECOMMENDATIONS MADE

"1. Hospitals to be built only where need for same can be shown. Advisory consultation in the determination of such need to be given by the state medical and hospital associations, the state health department and the county judges or officials of the counties in which such hospital services are proposed.

"2. Size of hospital to be commensurate with the needs of the community and the ability of the latter to support it.

"3. Means for the maintenance and upkeep of such hospitals rank in importance equal to that of construction.

"4. Since the important objective of the program is the service it can render, hospital construction and administration, equipment, staff

and personnel should meet the standards which the American Medical Association, the American College of Surgeons and the hospital associations regard as minimal for rendering such service in the various localities. Where needed, since highly specialized facilities and personnel cannot be made available in all places, affiliation with larger hospitals or hospital centers to be had to the end that highly specialized services for diagnosis and treatment, be made available to all.

"5. Maintenance of a standard of professional and hospital service that will keep it efficient and prove attractive to qualified men and women as a career.

"6. Utilization of existing facilities where possible: Under no circumstances should the program be allowed to develop into competition with the voluntary hospitals but should rather foster cooperation between the two groups.

"7. Many small communities can be better served by the utilization of bed vacancies in available existing institutions than by the construction of new hospitals, transportation and per diem expense to be borne by state and/or county funds. Where state and/or county funds cannot be provided, expense to be met by, and to be dispensed by, local agencies.

"Ambulance service and good roads will permit this type of service to operate safely, efficiently and economically in communities not financially able to support a hospital."

* * *

Editorial Comments on Plan

AS indications that the public will be more inclined to go along with the Roosevelt hospital program than with Senator Wagner and his cohorts are editorials published by two of Ohio's leading newspapers.

Said *The Cincinnati Enquirer*: "If the Federal Government is going to continue spending money for 'made work' programs, it might well turn some of its efforts to the building of hospitals in impoverished or neglected areas. The President's indication of interest in this plan is at least a sounder approach to the broad question of public health than the grandiose schemes of several members of Congress for the inclusion of health service in the social security program. If the government plunges into the task of insuring the health of 130,000,000 people, we shall soon see the end of such regional autonomy as we still retain. Likewise we shall see our whole structure of medical care and hospital service twisted out of its course by a bureaucratic plan for managing it."

Commenting on the subject, *The Cleveland Plain Dealer* observed: "A sensible middle-of-the-road policy would seem to meet this need without imposing a revolutionary change in the nation's system of medical care. This is the purpose of President Roosevelt's suggestion * * *. The plan elicits the immediate approval of officers of the A.M.A. as meeting their insistence upon local administration and control. * * * The program has much to commend it."

Renew Drive for Health Insurance

FOR years, off and on, the American Association for Social Security and the American Association for Labor Legislation, under Abraham Epstein and John B. Andrews, respectively, have waged a campaign for some form of compulsory health insurance. Epstein's efforts have been centered chiefly in drafting and lobbying for state systems of sickness insurance. The legislatures of a dozen or more states have defeated his pet measures over a period of years, but each year he bounces right back with the same or another proposal. He is at large again, as revealed in the following excerpts from *The New York Times*:

PLAN HATCHED IN NEW YORK

"A health insurance bill to be pressed in the Legislatures of this and other States was drafted here yesterday by representatives of government agencies, physicians, unions and civic groups, meeting under the auspices of the American Association for Social Security.

"The proposed bill, as outlined by Abraham Epstein, executive secretary of the association, and Professor Herman A. Gray of New York University, chairman of the State Advisory Council on Unemployment Insurance, would provide for tax contributions by employers, employees and the State, with coverage limited to persons earning less than \$1,500 or \$2,000 a year.

"Medical and dental benefits would be made available to the families of workers as well as to the workers themselves. The plan contemplates the payment during periods of illness of cash benefits for twenty-six weeks after a seven-day waiting period. Benefits would be divided into five wage classes, with additional allowances for dependents.

"Although the schedule of tax contributions is still under discussion, it would be based on a sliding scale involving the payment by the employer and the State of a proportionately larger share for the lowest-paid workers, with the reverse principle applying in the case of those somewhat more highly paid.

"Persons covered by the system would be entitled to unlimited service by physicians of their own choosing for preventive as well as curative functions. The services of surgeons, diagnosticians or other specialists could be obtained on the order of the physician and laboratory or clinical service would be available on prescription.

"The bill would provide for twenty-one days' free hospitalization. If necessary, the patient would be allowed to remain in the hospital for 111 additional days, paying only 15 per cent of the cost.

"Three methods of payment would be open to doctors and dentists—per capita payment, salary or fees for service. In each local district members of the profession would meet and decide by majority vote which method was to prevail there.

"Any medical practitioner would be eligible to participate in the system. Not only would the patient have free choice of his doctor, but the doctor would have full freedom to reject a patient he did not want.

"Administration would be under the supervision of a non-salaried board modeled after the State Board of Social Welfare."

* * *

Publicity Diet for the Public

IF it gets nothing else, the public cannot complain that it is being sold short on promotional material on medical and health problems, via the press, the radio and the lecture platform. To mention briefly a few of the more recent examples:

Platform adopted by the A.M.A.—constructive and progressive—gets a headline play from coast to coast; is the basis for scores of favorable editorial comments.

National Physicians' Committee for the Extension of Medical Service, supported by nationally-known leaders in medical organization and having the tacit approval of the A.M.A., carries on vigorous campaign for members and contributions for educational activities, in line with policies of A.M.A.

Paul deKruif, whose writings on medical and health topics always make good reading, although occasionally they fail to stand up under careful analysis, crashes *Country Gentleman* with a series of three articles, "The People Demand Public Health", in which deKruif advances his own suggestions for solving the problem—suggestions which follow in many respects the A.M.A. views.

American Youth Commission of the American Council on Education in "A Program of Action for American Youth" sees the need for "a health program organized on a scale never before attempted in this country".

The *American Labor Legislation Review* (John B. Andrews, editor) pounds away for Federalized medicine, while John A. Kingsbury, one of the most vocal advocates of compulsory sickness insurance, launches a new attack on "the medical politicians" in his latest attempt, "Health in Handcuffs".

United States Office of Education goes on the air with a series of five dramatized broadcasts entitled, "Democracy in Action", which turn out to be plugs for the salaried health officer and government researcher—construed by some as subtle promotion for government-supervised medicine, primarily because the private practitioner is made conspicuous by his absence.

America's Town Meeting of the Air took the Blue Network of N.B.C. on January 18 with a discussion on the subject, "Does America Need Compulsory Health Insurance". Elsewhere in this issue of *The Journal* will be found an article regarding a discussion of the topic, "How Can We Provide Adequate Medical Care for All", at the Columbus Town Meeting and broadcast over Station WCOL, Columbus.

The *United States News*, which reports doings

at Washington, carries a series of interviews with prominent physicians, public health officials and social security administrators based on answers to the question of whether they favor the recommendations advanced by the A.M.A. or a health program like that proposed in the Wagner Health Bill.

Members of farm and labor organizations are requested by officials of these groups to study the possibilities of medical cooperatives.

A committee of the Ohio State Medical Association assembles and studies voluminous data on group medical service programs, under the direction of the medical profession, for those of the low-wage brackets, analyzing their possibilities for later consideration by the Association and its component societies.

* * *

The wheel of fortune and destiny spins, where it will stop nobody knows!

James A. White, Columbus Attorney, Is Named to State Industrial Commission

James A. White, Columbus attorney, has been appointed by Governor Bricker as a member of the State Industrial Commission for a term of six years, succeeding John W. Beall, Lima. A native of Bloomfield, Highland County, Mr. White formerly resided in Barnesville, where he served a term as mayor, and for many years was general counsel and superintendent of the Ohio Anti-Saloon League. Other members of the Commission are Will T. Blake, East Liverpool, chairman, and Clarence H. Knisley, Bainbridge. Mr. White is employers' representative on the Commission; Mr. Blake, employees' representative; and Mr. Knisley, representative of the public.

Recent personnel changes in the staff of the Commission include: Don W. Wiper, former assistant city attorney and former safety director of Columbus, secretary to the Commission, succeeding A. D. Caddell, resigned; James H. Davis, promoted from referee to supervisor of the legal section, succeeding C. C. Core; Harry L. Sain, Dayton, assistant supervisor of the safety and hygiene division, replacing A. L. Rose, Akron, who retired December 31.

Holds Company, Not Physician, Liable

An interesting decision was rendered by Common Pleas Judge Edward C. Turner of Franklin County recently in dismissing a suit for \$5,000 damages against a physician filed by a woman who alleged that she was dismissed by her employer after the physician had reported that she was in poor health. The court held that inasmuch as the physician was employed by the company, he was liable only to that company and not to the employees, since they did not hire him.

Do You Know - - -

The rubber-check dispenser about whom Ohio physicians were warned on page 84 of the January issue of *The Journal* has been in Logan County. His known victims now include oculists in Missouri, Texas, North Carolina, New York and Ohio. "G. C. Sherman" is his Ohio alias.

* * *

Dr. Spencer Braden, Cleveland, is the new president of the Academy of Neurosurgery, which will hold its 1940 meeting in Cleveland.

* * *

Dr. Claude A. Burrett, one time dean of the former Ohio State University College of Homeopathic Medicine, has been named president of the New York Medical College, Flower and Fifth Avenue Hospitals, New York.

* * *

Nineteen states now require examinations including blood tests for syphilis of all applicants for marriage licenses and 15 require physicians to perform blood tests for syphilis on expectant mothers.

* * *

The initiated bill of California chiropractors to extend the scope of their practice was defeated by more than 1,000,000 votes, the final figures being: yes, 801,173; no, 1,894,764, the total representing 82.48 per cent of the state's total registration.

* * *

Ohio Society of Osteopathic Physicians and Surgeons, Inc., has established headquarters in Columbus, with William C. Konold as executive secretary, according to the press.

* * *

Dr. Perrin H. Long, a native of Bryan, and authority on sulfanilamide, has been appointed head of a new department of preventive medicine at Johns Hopkins University School of Medicine, created through a Rockefeller Foundation grant of \$350,000 over the next 10 years.

* * *

Members of the Columbus Academy of Medicine this year are furnished with transparent sticker M.D. emblems for use on their automobile windshields.

* * *

E. R. Squibb & Sons have established an annual award of \$1,000 to encourage investigation in endocrinology, the award to be handled by the Association for the Study of Internal Secretions. Nominations for the 1940 award must be received before March 1 by the secretary of the association, Dr. Eberle K. Shelton, 921 Westwood Boulevard, Los Angeles.

Dr. Gustav Eckstein, associate professor of physiology at the University of Cincinnati College of Medicine, is author of the play "Christmas Eve" which opened in New York recently.

* * *

According to *The Monitor*, publication of the State Division of Safety and Hygiene, agriculture leads all other industrial groups in the number of fatal accidents, being charged with 4,300 deaths, or 26 per cent of the nation's industrial death toll in 1939.

* * *

Dr. Porter J. Crawford, former Troy and Miami County Health Commissioner, who has been a member of the staff of the Rockefeller Foundation for the past 11 years, was recently appointed regional representative of the international health division for the Caribbean area, with headquarters in the Panama Canal Zone.

* * *

A grant of \$6,000 has been made by the John and Mary R. Markle Foundation to Western Reserve University School of Medicine for the continuation of the investigations of Dr. Claude S. Beck, associate professor of surgery, on methods of revascularizing the heart after coronary obstruction.

* * *

Dr. Louis J. Karnosh, Cleveland, has been re-appointed by Governor John W. Bricker as a member of the advisory council to the state division of mental diseases, for a term ending January 1, 1944.

* * *

The National Foundation for Infantile Paralysis recently announced a grant of \$7,000 for research under the direction of Dr. Albert B. Sabin at the University of Cincinnati College of Medicine and the Children's Hospital Research Foundation, Cincinnati.

* * *

Roy Hoffman, Bellefontaine, son of the late H. A. Hoffman, faith-healer, is guilty of opening and conducting an office for the practice of medicine illegally but not guilty of practicing medicine illegally, a jury of six women and six men decided recently in the Logan County Common Pleas Court.

* * *

Western Reserve University School of Medicine has received a grant of \$1,250 from the National Research Council to support from January 1 to June 30 a study of human ovulation under the direction of Dr. William W. Greulich, professor of physical anthropology and anatomy and director of the Brush Foundation.

State Department of Health Re-Organized; Eight New Divisions Created; Old Ones Abolished; Schedule of Qualifications for Positions Established

ACTION authorizing complete re-organization of the State Department of Health, effective February 1, was taken by the Ohio Public Health Council on January 14.

The Council's action was taken in compliance with Section 1235, General Code of Ohio, as amended at the 1939 session of the State Legislature by the enactment of Sub. House Bill 301, which gives the Council authority "to prescribe by regulations the number and functions of divisions and bureaus and the qualifications of chiefs of divisions and bureaus within the state department of health".

Shortly after it took office on August 18, 1939, the Council directed Dr. R. H. Markwith, state director of health, to make a survey of the department and to submit data on the operations and functions of the department for review by the Council. Result of the study conducted by the Council was the adoption of the re-organization regulations on January 14. In authorizing the re-organization the Council expressed itself as believing that the new set-up will result in efficiency and economy in the operations of the department.

EIGHT NEW DIVISIONS

Through the adoption of the new regulations all existing divisions and bureaus within the State Department of Health were abolished and functions of those agencies assigned to the following newly-created eight divisions, the activities of which are summarized:

Adult Hygiene Division: Venereal diseases, occupational diseases, pneumonia control, cancer control, appendicitis control, and geriatrics.

Child Hygiene Division: Maternal and child health, communicable diseases, prevention of blindness, hospitals and dispensaries, nutrition, and tuberculosis.

Audits and Statistics Division: Finance, reports, statistics, birth and death registration, mechanical tabulation.

Engineering Division: Public water supplies and water treatment, public sewerage and sewage treatment, stream pollution, mine sealing, industrial wastes, environmental sanitation, milk sanitation, public institutions, and plumbing.

Laboratory Division: Serology, bacteriology, chemistry and research.

Legal Division: Public Health Manual, manual of public health procedures, legal advice, proposed legislation, and legal forms.

Nursing Division: Consultation for public

health nursing problems, registry of public health nurses, and placement of public health nurses.

Dental Division: Dental health education.

QUALIFICATIONS ESTABLISHED

The Council, through the adoption of regulations establishing minimum qualifications for the chiefs of these divisions, placed itself on record in favor of a merit system for appointments. The following qualifications for the eight positions were set as follows:

Adult Hygiene Division: Degree of Doctor of Medicine from approved university, college or school; one year' general internship; graduate training in public health and five years' experience in public health administration; must be licensed to practice medicine in Ohio or must obtain an Ohio license within one year after date of employment.

Child Hygiene Division: Degree of Doctor of Medicine from approved university, college or school; one year' general internship; graduate training and experience in pediatrics or obstetrics; graduate training in public health and five years' experience in public health administration; must be licensed to practice medicine in Ohio or must obtain Ohio license within one year after date of employment.

Audits and Statistics Division: Certified public accountant or eligible for examination in Ohio; not less than four years' experience in governmental auditing and statistical work; collegiate training in accounting and business administration; at least five years of administrative experience in auditing and statistics, of which at least two years was devoted to statistics; qualified to supervise operation of mechanical tabulating machines.

Engineering Division: Graduate of university, technical school or engineering college of recognized standing; registered in Ohio as a professional engineer; not less than 12 years' experience in the active practice of engineering, of which not less than 10 years shall have been in the field of sanitary engineering; collegiate training in sanitary or public health engineering and five years' experience in administrative public health engineering.

Laboratory Division: Degree of Doctor of Medicine from an approved university, college or school; one year's general internship or one year of laboratory training in an approved hospital or institution; graduate training in public

health and five years' administrative experience in a public health laboratory; graduate training and experience in pathology, serology, bacteriology and chemistry; licensed to practice medicine in Ohio or must obtain an Ohio license within one year after date of employment.

Legal Division: Legally qualified to practice law in Ohio; engaged in practice of law not less than five years, two years of which shall have been devoted to the practice of administrative law; experience in public health administration.

Nursing Division: Bachelor's degree; graduation from school of nursing connected with a general hospital having a daily average of 50 or more bed patients, with the necessary affiliations to provide a program of study which included instructions and experience in obstetrics, pediatrics, orthopedics and communicable disease nursing, including tuberculosis and venereal diseases; college training in public health and five years' experience in administering public health nursing; must be registered nurse in Ohio, or obtain registration in Ohio within one year after date of employment.

Dental Division: Degree of Doctor of Dental Surgery from an approved university, college or school of dentistry; not less than three years' experience in general practice of dentistry or in hospital dental service; preferably one (or more) year's training in children's dentistry and oral hygiene; administrative experience in dental health programs; licensed to practice dentistry in Ohio or obtain Ohio license within one year after date of employment.

SALARIES AND FELLOWSHIPS

A recommendation that the salary schedule for division chiefs be from \$3,600 to \$5,000 per year, depending on position and qualifications was adopted.

In order to expedite re-organization of the department, the State Civil Service Commission will be requested to survey the department and to issue certified lists of those eligible for the various staff positions. If necessary, the Commission will be asked to conduct examinations to permit applicants to qualify for appointment.

The department, according to Dr. Markwith, is anxious to receive applications for fellowships in graduate public health training, especially from those now holding residencies in various fields. Through the fellowships, financed from department funds, those interested will be able to prepare themselves to meet the qualifications which have been established for the various positions.

STATUS OF PERSONNEL

Under the re-organization plan, the following chiefs of former divisions or bureaus will step

down but will retain their Civil Service status and eligibility for appointment to staff positions within the eight new divisions: Dr. Finley Van Orsdall, communicable diseases; Dr. Kenneth D. Smith, occupational diseases; Dr. R. W. DeCrow, health organization; Dr. Neal D. Carter, venereal disease control; Dr. Walter J. Smith, tuberculosis control; I. C. Plummer, vital statistics; Mrs. Clara E. Reeder, hospital registration; Richard T. Barrett, plumbing inspection, and Kenneth D. Pratt, sanitation.

The following who meet the qualifications established by the Public Health Council and Civil Service requirements, according to Dr. Markwith, will become division chiefs, effective February 1: James E. Bauman, assistant state director of health, chief, Legal Division; F. Holman Waring, chief, Engineering Division; Walter S. Mendenhall, chief, Division Audits and Statistics.

Pending the holding of Civil Service examinations and certification of lists by the Civil Service Commission, so that appointments may be made, the following will serve, effective February 1, as acting division chiefs: Leo F. Ey, Laboratory Division; Dr. John B. Kistler, Adult Hygiene Division; Dr. Arthur W. Thomas, Child Hygiene Division, and Miss Gertrude Bush, Public Health Nursing Division.

Members of the Public Health Council are: Dr. Clyde L. Cummer, Cleveland, chairman; Dr. Russel G. Means, Columbus, vice chairman; Dr. Ward D. Coffman, Zanesville; Mrs. C. Tracy LaCost, Toledo; Dr. S. F. Ridings (dentist), Greenville; and William Helmer, Cincinnati.

Lectures on Hemotologic Diseases

Fellows of the American College of Physicians are invited to participate in a postgraduate survey of hemotologic diseases to be given under the auspices of the Ohio State University College of Medicine, March 25-29. Dr. Charles A. Doan will be director of the course. Guest lecturers are Dr. Florence R. Sabin, member-emeritus of the Rockefeller Institute for Medical Research, New York City, and Dr. Carl V. Moore, assistant professor of medicine, Washington University School of Medicine, St. Louis. The resident faculty consists of Dr. Doan, Dr. Bruce K. Wiseman, Dr. George M. Curtis, Dr. Emmerich von Haam, Dr. N. Paul Hudson, Dr. Harry L. Reinhart, Dr. B. C. Houghton, Dr. Robert C. Kirk, Dr. Sloan J. Wilson and Dr. Emma H. Boyle.

There were 160 medical schools in the United States in 1900, with 5,214 graduates. In 1938 there were only 77 medical schools, but the number of graduates was approximately the same, 5,194.

When, How and Where Physicians Should File Federal and State Tax Returns and Pay the Taxes Which Are Due

DURING the next few months Ohio physicians, along with other taxpayers, must file certain Federal and State tax returns and pay certain taxes. Failure to do so subjects the taxpayer to penalties which can be avoided by prompt compliance with the laws governing such taxes.

These returns and taxes, with the place and last date for filing or payment, include: Federal Income Tax Information Return, listing salaries and wages paid during 1939, with the Commissioner of Internal Revenue, Washington, D. C., **February 15**; Ohio Personal Property Tax Return, with County Auditor, between **February 15 and March 31**; Federal Income Tax Return for 1939, and first quarterly payment, with the District Collector of Internal Revenue, **March 15**; Social Security (Old Age Benefits) Tax, affecting all employers of one or more persons, first quarterly informational return and tax for January, February and March, 1940, **April 30**; State Unemployment Compensation Tax (for employers of three or more persons, Employers' Contribution Report and Tax, with the Unemployment Compensation Commission, Columbus, **January 31**, for period October 1 to December 31, 1939, and **quarterly thereafter**; Federal Unemployment Compensation Tax (for employers of eight or more persons), with District Collector of Internal Revenue, **January 31**, for calendar year 1939; Ohio Use Tax, State Tax Commission, Columbus, **April 15** for period **January 1 to March 31, 1940**, and quarterly thereafter.

For the information of members of the Ohio State Medical Association who are required to file the above returns and pay these taxes, *The Journal* presents herewith an explanation of the tax laws as they affect physicians, with suggestions as to procedure, based on authoritative information obtained from Federal and State tax officials.

FEDERAL INCOME TAX

COLLECTORS of Internal Revenue in Ohio have mailed to all taxpayers of record, blanks for making Federal Income Tax returns for the calendar year 1939.

These blanks, properly filled out, must be filed with the collector of the district in which the taxpayer resides, on or before March 15, 1940.

Any physician required to make a return, but who fails to receive an income tax blank, should apply to the Collector of Internal Revenue for his district.

Internal revenue districts of Ohio, together with the name and address of the collector, and the counties comprising each district, follow:

For the Columbus District (Ohio 11th) Collector of Internal Revenue Harry F. Busey, Federal Building, Water and Gay Sts., Columbus, Ohio; comprising the following counties:

Adams, Athens, Coshocton, Delaware, Fairfield, Franklin, Gallia, Guernsey, Hocking, Jackson, Knox, Lawrence, Licking, Madison, Marion, Meigs, Morgan, Morrow, Muskingum, Noble, Perry, Pickaway, Pike, Ross, Scioto, Union, Vinton and Washington.

For the Cleveland District (Ohio 18th) Col-

lector of Internal Revenue Frank F. Gentsch, 262 Federal Building, Cleveland, Ohio; comprising the following counties:

Ashland, Ashtabula, Belmont, Carroll, Columbiana, Cuyahoga, Geauga, Harrison, Holmes, Jefferson, Lake, Lorain, Mahoning, Medina, Monroe, Portage, Richland, Stark, Summit, Trumbull, Tuscarawas and Wayne.

For the Cincinnati District (Ohio 1st) Collector of Internal Revenue Thomas J. Connor, Customs Building, Cincinnati, Ohio; comprising the following counties:

Brown, Butler, Clark, Clermont, Clinton, Fayette, Greene, Hamilton, Highland, Miami, Montgomery, Preble and Warren.

For the Toledo District (Ohio 10th) Collector of Internal Revenue Charles H. Graves, Toledo, Ohio; comprising the following counties:

Allen, Auglaize, Champaign, Crawford, Darke, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Logan, Lucas, Mercer, Ottawa, Paulding, Putnam, Sandusky, Seneca, Shelby, Van Wert, Williams, Wood and Wyandot.

Any taxpayer can obtain assistance in filling out his income tax return at the various district offices of internal revenue. Between now and March 15 field representatives of these offices spend a day or two in most county seats in the

state in order to make their services more readily available to taxpayers. Announcement of their coming is usually made in local newspapers.

INFORMATION RETURNS

In addition, every person making payments of salaries, wages, interest, rents, commissions, or other fixed or determinable income of \$1,000 or more during the calendar year 1939, to a single person, a partnership, or a fiduciary, or \$2,500 or more to a married person, is required to make a return on Forms 1096 and 1099 showing the amount of such payments and the name and address of each recipient. These forms may be obtained from any District Collector of Internal Revenue on request.

Salaries of office assistants and other employees coming under this provision must be reported, also office rent, unless paid to a corporation.

Such returns covering the calendar year 1939 must be forwarded to the Commissioner of Internal Revenue, Sorting Section, Washington, D. C., in time to be received not later than February 15, 1940.

PUBLIC EMPLOYEES MUST FILE

The procedure for filling out income tax blanks and computing the tax for the past year is in accordance with the Revenue Act of 1936, except that by the enactment of the Public Salary Tax Act of 1939, the wages, salaries and compensation of all officers and employees of states and their political subdivisions, agencies and instrumentalities, are now subject to the Federal Income Tax for taxable periods beginning January 1, 1939. As a result of this legislation, the liability for filing Federal income tax returns will apply to many individuals employed by the state, counties, municipalities and school districts, who previously have not been required to file such returns.

FORMS TO BE USED

Physicians and other professional men, are required to use Form 1040 in submitting returns, regardless of the amount of net income. The sole exception is a physician not in private practice, receiving a salary, whose net income is less than \$5,000. In such cases, Form 1040-A should be used.

Income tax returns must be filed in duplicate, and a penalty of \$5 is provided for failure to file a duplicate return. The duplicate will be made available by the Internal Revenue Department to the State Tax Commission for the purpose of checking personal property tax returns.

PROCEDURE FOR PHYSICIANS

Following is a detailed analysis of the procedure physicians should follow in filling out blanks for their 1939 income and an example of how computations should be made:

Every physician whose net income for 1939 was \$1,000 or more, if single, and \$2,500 or more, if married, must file an income tax return on or before March 15, 1940. He also must file a return if his gross income was \$5,000 or more, irrespective of marital status and net income.

All groups, joint ventures and other incorporated organizations must file returns as partnerships or corporations. Such returns must list the names and addresses of the individuals who would be entitled to share in the net income if distributed and the amount of the distributive share of each individual. The members of such groups or corporations must report their distributive shares as their own income.

In order to expedite checking of returns, and eliminate the possibility of unnecessary correspondence or investigations, physicians are urged to fill out all schedules in their returns.

GROSS INCOME

Gross income includes gains, profits and income derived from professional services, business activities, salaries, wages, sales, dealing in, or exchange of real or personal property, rents or royalties, dividends and interest, bonuses received as compensation, money collected on old accounts charged off in previous years as "bad debts", and funds received from all other sources.

PERSONAL EXEMPTIONS

If married and living with wife, or the head of a family, for the entire year, an exemption of \$2,500 is allowed; if single and not a head of a family, an exemption of \$1,000 is permitted, as credit against net income for the purposes of the normal tax and the surtax.

Credit of \$400 is permitted for each dependent under 18 years of age or each physically or mentally handicapped dependent regardless of age. The credit is not allowed in the case of a dependent minor over 18 years of age even if such minor is attending school.

The names and relationships of dependents for whom a credit is taken must be shown on Schedule J, page 4, of the return.

In case of a change during the calendar year of the status of the physician in so far as it affects the personal exemption or credit for dependents, the personal exemption and credit should be apportioned in accordance with the number of months after such change. Authority for prescribing rules and regulations for such apportionment is given to the Commissioner of Internal Revenue.

A husband and wife living together shall receive but one personal exemption. The amount of such personal exemption is, as previously stated, \$2,500. If such husband and wife make

separate returns, the personal exemption may be taken by either or divided between them.

ITEMS NOT REPORTABLE AS INCOME

The following items **should not** be included in gross income tax since they are **exempt** to Federal income tax:

Amounts received under a life insurance contract paid by reason of the death of the insured; whether in a single sum or in installments (but if such amounts are held by the insurer under an agreement to pay interest thereon, the interest payments shall be included in gross income).

Amounts received (other than amounts paid by reason of the death of the insured and interest payments on such amounts and other than amounts received as annuities) under a life insurance or endowment contract, but if such amounts (when added to amounts received before the taxable year under such contract) exceed the aggregate premiums or consideration paid (whether or not paid during the taxable year) then the excess shall be included in gross income. Amounts received as an annuity under an annuity or endowment contract shall be included in gross income; except that there shall be excluded from gross income the excess of the amount received in the taxable year over an amount equal to 3 per cent of the aggregate premiums or consideration paid for such annuity (whether or not paid during such year), until the aggregate amount excluded from gross income equals the aggregate premiums or consideration paid for such annuity.

Gifts (not made as a consideration for service rendered) and money and property acquired by bequest, devise, or inheritance (but the income derived from such property is taxable and must be reported).

Interest upon (1) the obligations of a State, Territory, or any political subdivision thereof, or the District of Columbia, or United States possessions; or (2) obligations issued under the provisions of the Federal Farm Loan Act or under such act as amended; or (3) the obligations of the United States; or (4) obligations of instrumentalities of the United States (other than obligations issued under Federal Farm Loan Act or under such Act as amended), such as Federal Farm Mortgage Corporation bonds, Home Owners' Loan Corporation bonds, etc. The interest on United States Savings Bonds and Treasury Bonds, owned in excess of \$5,000, and on obligations of instrumentalities of the United States (other than obligations issued under Federal Farm Loan Act or under such Act as amended) is subject to surtax if the surtax net income is over \$4,000.

Amounts received through accident or health insurance or under workmen's compensation acts, as compensation for personal injuries or sickness

plus the amount of any damages received, whether by suit or agreement, on account of such injuries or sickness.

Compensation paid by a State or political subdivision thereof to its officers or employees for services rendered in connection with the exercise of an essential governmental function.

Amounts received as earned income from sources without the United States (except amounts paid by the United States or any agency thereof) by an individual citizen of the United States who is a bona fide nonresident for more than six months during the taxable year. The taxpayer in such a case may not deduct from his gross income any amount properly allocable to or chargeable against the amount so excluded from his gross income.

DEDUCTIBLE ITEMS

In computing net income, the following items may be deducted by a physician from gross income:

Office Rental—If a physician pays rent to another person for office space, he may deduct such amount. If he owns his own home and maintains an office in it, he cannot claim deduction for office rent. However, he is entitled to claim depreciation on that portion of the property occupied as an office.

Automobile—The cost of repair and upkeep of an automobile, including gasoline and oil, used in professional visits may be deducted. That part of the salary paid to a chauffeur and attributable to time spent in driving his employer on professional calls, may be deducted. Sums spent for taxi hire, car fare, etc., while on professional calls, may be deducted.

Loss on an automobile used in professional business through depreciation may be deducted. The depreciation which should be deducted annually is figured by dividing the cost price of the machine by the number of years of its usefulness. If a physician has one automobile which is used exclusively in professional business, he may deduct the full depreciation each year. If the machine is used only partly in professional business the deductible depreciation should be computed on the basis of the amount of time the car is used for professional purposes. If a physician possesses two cars, each of which is used partly in professional business, the deductible depreciation on each car should be computed on the basis of the amount of time each car is used for professional purposes. In other words, if an automobile is used only partly for business purposes, depreciation may be deducted only on a proportionate part thereof, the amount of depreciation depending on the amount of time the machine is used in professional business.

It is suggested that physicians be prepared to

substantiate claims for deductions from gross income for professional use of automobiles in case income tax officials should call on them for written records to show the mileage traveled by them in connection with professional practice, or to prove just what part of their automobile maintenance expense was a professional expense, and therefore deductible.

Professional Dues—Dues paid to professional associations to which, in the interest of his profession, the physician belongs, may be deducted. Expenses incurred in taking graduate courses have been held not to be deductible.

Traveling Expenses—Traveling expenses necessarily incurred by a physician on professional calls and in attending medical conventions for a professional purpose are deductible from gross income.

Salaries and Wages—Deductions are permitted for the salaries or wages of nurses, laboratory workers, technicians, assistants, stenographers or other clerical workers in a physician's office so long as their duties are connected with professional work; also for wages paid maids, janitors, etc., for services rendered in connection with professional practice.

Medicines, Supplies, etc.—Cost of medicines used in the office to treat patients, medicine dispensed, bandages, laboratory materials, chemicals, and other supplies "consumed in the using" and necessary to operate the office may be deducted.

Equipment, Furniture, Library, etc.—Cost of surgical instruments and laboratory appliances of more or less permanent value may not be deducted but a percentage of the purchase price may be deducted annually under a depreciation account. The same rule applies to office furniture and books purchased for the physician's office library. If improvement to offset obsolescence and wear and tear or injury has been made and deduction for the cost claimed elsewhere in the return, claim should not be made for depreciation.

General Office Expenses—The cost of telephone, telegrams, heat, light, water, etc., used in professional service is deductible. Physicians who keep current magazine and newspapers in their waiting rooms for the benefit of their patients, may deduct this item as a business expense. The cost of professional journals for the physician's own use is also a deductible item.

Debts—If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debt because he is then only reporting as gross income those accounts which have proved to be good. Bad accounts have not been reported and are therefore not deductible.

If books are kept on an "Accrual Basis" (where expense is actually incurred and payable even though not yet paid, or income earned although not yet collected) it is permissible to charge off all debts which have been definitely ascertained to be worthless during the fiscal year covered by the report.

The physician using this latter system must be careful to include in gross income bad debts which have been charged off in previous years but collected during the calendar year for which the return is filed.

Taxes and Licenses—All state and county taxes, except those assessed against local benefits of a kind tending to increase the value of the property assessed and those imposed upon the taxpayer upon his interest as shareholder of a corporation which are paid by the corporation without reimbursement from the taxpayer, are deductible.

Sales tax payments may be deducted. A reasonable allowance will be permitted in proportion to the physician's income. Should the claimed exemption appear too large, however, the burden of proof falls upon the taxpayer, and he may be called upon to produce purchase receipts to substantiate his claim. Sales tax coupons are not considered sufficient evidence.

All Federal taxes except income, war-profit and excess-profit taxes are deductible, including Federal excise taxes collected direct from the consumer or purchaser.

Federal Old Age Benefits and Unemployment Compensation taxes paid by employers under the Social Security Act are proper deductions in making income tax returns. Such taxes are deductible on returns for the taxable year in which they are accrued or paid, depending upon the method of accounting employed by the taxpayer. However, Federal Old Age Benefits payroll deductions from employes' wages are not proper deductions from individual Federal income tax returns. The reason for this latter distinction is that the individual employee at a future date will have returned to him in the form of pensions the money which is deducted from his current wages.

The Ohio Gasoline Tax is deductible to the extent of three cents per gallon. If a physician has already deducted the cost of gasoline used in making professional calls as automobile expense, he cannot of course make an additional deduction of three cents per gallon for gasoline so used. However, he may deduct that amount on gasoline purchased for other than professional use.

All license fees which the physician is required to pay are deductible, including the narcotic tax, automobile license tag fee, local occupational taxes, taxes on club dues, etc.

Interest—Amounts paid out as interest upon indebtedness (except interest paid to carry non-taxable securities) are deductible.

Losses by Fire and Theft—Loss of and damage to a physician's equipment by fire, theft, or other cause, not compensable by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent to which it has not been made good by repair and the cost of the repair is claimed as a deduction.

Insurance Premiums—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries to a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Premiums paid on life insurance are not deductible.

Legal Expenses—Expense incurred in the defense of a suit for alleged malpractice is deductible as business expense. However, expense incurred in the defense of a criminal action is not deductible.

Contributions, Gifts, etc.—It is permissible to deduct from gross income contributions made to charitable, religious, educational and scientific organizations, no substantial part of the activities of which is carrying on propaganda, or otherwise attempting to influence legislation, to an aggregate amount not to exceed 15 per cent of the net income, exclusive of such contributions.

NORMAL TAX RATE

The normal tax rate on 1939 income is 4 per cent on all net income in excess of exemptions and credits.

SURTAX RATES

In addition to the normal tax, a surtax is levied on surtax net income, that is, net income less the personal exemption and the credit for dependents, as follows:

Surtax net income of \$4,000, no surtax; \$4,000 to \$6,000, 4 per cent; \$6,000 to \$8,000, 5 per cent; \$8,000 to \$10,000, 6 per cent; \$10,000 to \$12,000, 7 per cent; \$12,000 to \$14,000, 8 per cent; \$14,000 to \$16,000, 9 per cent; \$16,000 to \$18,000, 11 per cent; \$18,000 to \$20,000 13 per cent; \$20,000 to \$22,000, 15 per cent; \$22,000 to \$26,000, 17 per cent; \$26,000 to \$32,000, 19 per cent; \$32,000 to \$38,000, 21 per cent; \$38,000 to \$44,000, 24 per cent; \$44,000 to \$50,000, 27 per cent; \$50,000 to \$56,000, 30 per cent; \$56,000 to \$62,000, 33 per cent; \$62,000 to \$68,000, 36 per cent; \$68,000 to

\$74,000, 39 per cent; \$74,000 to \$80,000, 42 per cent; \$80,000 to \$90,000, 45 per cent; \$90,000 to \$100,000, 50 per cent; \$100,000 to \$150,000, 52 per cent; \$150,000 to \$200,000, 53 per cent; \$200,000 to \$300,000, 54 per cent; \$300,000 to \$400,000, 55 per cent; \$400,000 to \$500,000, 56 per cent; \$500,000 to \$750,000, 57 per cent; \$750,000 to \$1,000,000, 58 per cent; \$1,000,000 or more, 59 per cent.

EARNED INCOME CREDIT

For purposes of the normal tax, an earned income credit is allowed by means of a deduction from net income of an amount equal to 10 per cent of the earned net income. If the taxpayer's net income is not more than \$3,000, his entire net income is considered to be earned net income. If his net income is more than \$3,000, his earned net income shall not be considered less than \$3,000 but in no case shall the earned net income be considered more than \$14,000.

HOW COMPUTATIONS ARE MADE

An example of how computations are made is given here for the information of physicians. The figures used in the following tabulations may appear out of proportion to the actual income of the average physician during 1939. However, they are used merely to illustrate how the normal and surtax rates should be applied.

If a married physician with no dependents and who rents his home and office had a gross income during 1939 of \$15,000 and ordinary expenses, he should submit the following data on his return and compute his tax as follows:

Gross Income		
Income from professional services.....	\$12,000.00	
Income from other sources:		
Rent from apartment.....	\$1,500.00	
Taxable interest, dividends.....	1,500.00	
		\$3,000.00 3,000.00
Gross income		\$15,000.00

Deductions		
Depreciation of office furniture, etc.	\$	400.00
Salaries and wages for office help		1,500.00
Telephone, heat, light, etc.		400.00
Automobile cost and depreciation		800.00
Drugs, bandages, medicines, etc.		2,500.00
Traveling expenses to medical meetings		300.00
Office rent		800.00

Dues, insurance	200.00
Miscellaneous expense	100.00
Business expenses	\$7,000.00
State sales tax	75.00
Old age benefit tax	15.00
Gasoline tax	10.00
Taxes on apartment	400.00
Interest on mortgage, over- head, etc.	300.00
Total deductible expenses	\$ 7,800.00
Net income (gross income, less de- ductible expenses)	\$ 7,200.00

Computations

Surtax net income (net income less per- sonal exemption \$7,200.00 less \$2,500.00)	\$ 4,700.00
Earned net income (earned income less business expenses, \$12,000.00 less \$7,000.00)	\$ 5,000.00
Earned income credit (10% of earned net income, \$5,000.00)	\$ 500.00
Income subject to normal tax (net in- come less personal exemptions and earned income credit; \$7,200.00 less \$2,500.00 and \$500.00)	\$ 4,200.00
Normal tax (4% of \$4,200.00)	\$ 168.00
Income subject to surtax (surtax net income in excess of \$4,000.00)	\$ 700.00
Surtax (4% of \$700.00)	\$ 28.00
Total tax (normal tax plus surtax)	\$ 196.00

EXTENSION OF TIME FOR FILING RETURNS

Collectors of Internal Revenue are authorized to grant reasonable extensions of time for filing income tax returns. Applications for extensions of time should be addressed to the collector for the district in which the physician files his return, and must contain a full recital of the causes for the delay. Except in the cases of taxpayers who are abroad, no extension for filing income tax returns may be granted for more than six months.

OHIO PERSONAL PROPERTY TAX

RETURNS under the Ohio Personal Property Tax Law must be made between February 15 and March 31, annually.

All tangible and intangible personal property (not real property) in possession of a physician on January 1, 1940, which is subject to taxation under the Ohio law, should be listed on the return which should be filed with the county auditor between those dates. Form 910 is used

by individuals and partnerships, and Form 930 by corporations.

Such returns should be made in duplicate. The so-called intangible tax statutes are intricate and complicated so each physician having taxable personal property for listing should obtain competent advice in case of doubt as to the meaning of any of the provisions of the law.

One of the complicated provisions of the tax law is that involving the listing of credits which are taxable at 3 mills on the dollar and which involves the computation of accounts receivable.

As defined in Section 5327 of the law, credits "mean the excess of the sum of all current accounts receivable and prepaid items used in business when added together estimating every such account and item at its true value in money, over and above the sum of current accounts payable of the business, other than taxes and assessments.

The same section states that "current accounts include items receivable or payable on demand or within one year from the date of inception, however evidenced".

As the first step in making his return under the section relating to credits, a physician should estimate by his best judgment the Actual Value of his current accounts receivable—the amount that can probably be collected.

In listing his current accounts receivable, the physician should note after each account what he considers the value of the account. If he believes the account can be collected in full, it should be listed at its full face value. Otherwise, it should be listed at 75%, 50%, 25%, 10%, etc., of its full face value, or of "no value" in case that is considered the "actual value" of the account. The total of these estimates is the total to be entered as "current accounts receivable" and used in computing credits.

This procedure permits the physician to charge off bad debts since in his 1940 return he would be permitted to return as of "no value" accounts receivable which he listed in 1939 but no part of which was collected during the past year. Moreover, it permits a physician to depreciate the actual value of accounts returned in 1939 but which have decreased in actual value during the past year.

OLD AGE BENEFITS TAX

The Old Age Benefits Tax is payable by every physician who employs one or more persons in his office. It amounts to one per cent on the first \$3,000 of each employee's wage paid by the employer and a like amount deducted from the wages of each employee. The tax return and informational return, combined in one report, Form SS-1-A, is to be filed quarterly. The tax must be paid and the return filed prior to April

30, for the months of January, February and March, 1940, in the office of the District Collector of Internal Revenue.

UNEMPLOYMENT COMPENSATION TAX

Under the Ohio Unemployment Compensation Law, physicians who employ three or more persons must file an "Employer's Contribution, Form UCO-2-e, Report," quarterly with the Unemployment Compensation Commission, Columbus. Report for the period of October 1 to December 31, 1939, was due January 31. The tax, which must accompany the return, amounts to 2.7 per cent of the quarterly payroll.

Employers of eight or more persons, under the Federal Unemployment Compensation Law, must have filed with the District Collector of Internal Revenue on Form No. 940, prior to January 31, 1940, a report of wages paid during 1939. The tax is 3 per cent, less a credit of the amount paid to the State Unemployment Compensation Commission. In other words, 90 per cent of the Unemployment Compensation Tax of employers of eight or more persons will be paid to the State and 10 per cent to the Federal Government.

OHIO USE TAX

The Ohio Use Tax Law, passed in 1936 supplementing the Retail Sales Tax Law, imposes a tax on the same basis as the sales tax, on purchases made outside the state. Its purpose is to protect Ohio merchants from discrimination. Many out-of-state firms have made arrangements with the State Tax Commission to add the amount of the tax to invoices covering purchases by Ohio consumers, collecting the tax and paying it directly to the Commission. However, if a physician purchases drugs or supplies from an out-of-state firm which has not made such an arrangement with the Tax Commission, he is required to report such purchases to the Tax Commission and pay the tax. Returns must be filed with the Commission by April 15, for purchases during the period January 1 to March 31, 1940, and quarterly thereafter.

Presents Portrait of Dr. Todd

A portrait of the late Dr. T. Wingate Todd was presented to the Department of Anatomy, Western Reserve University School of Medicine, by Dr. B. Holly Broadbent, director of the Bolton Fund, on Dr. Todd's birthday, January 15. President Winfred G. Leutner accepted the portrait, Dr. Norman L. Hoerr spoke of its hanging in the Library of Anatomy and Dr. Frederick C. Waite gave a brief history of the memorial portraits in the School of Medicine. The artist who painted Dr. Todd's picture is Dr. Erich von Baeyer, fellow in roentgenology of University Hospitals.

All Interested Ohio Physicians Invited To Medical Service Conference

All physicians interested are cordially invited to attend the Fourteenth Annual Meeting of the National Conference on Medical Service (formerly the Northwest Regional Conference) at the Palmer House, Chicago, Sunday, February 11, from 10 a.m. to 4:30 p.m. This informal, unofficial and non-political conference, has as its purpose affording physicians an opportunity to exchange ideas and obtain practical information on medical economics. It is unique in that it has no dues or registration fee, constitution or by-laws and its deliberations result in no resolutions or motions.



DR. McCORMICK

The program on February 11 will consist of a round-table on "Group Medical Care and Group Hospitalization Programs", in which the following have been asked to participate: Dr. R. L. Sensenich, South Bend, Indiana; Dr. Carl F. Vohs, St. Louis; Dr. Henry R. Carstens, Detroit; Dr. George H. Kress, San Francisco, and Dr. D. H. McA. Pyle, New York City.

"Allocation of Federal Funds to States", will be presented by Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association. The discussion leader on this topic will be Dr. Wm. F. Braasch, Rochester, Minn. Dr. Edward J. McCormick, Toledo, Councilor for the Fourth District of the Ohio State Medical Association, and Dr. Morris Fishbein, editor of *The Journal of the A.M.A.*, will discuss "Effective Public Relations".

Paul G. Hoffman, president of the Studebaker Corporation, has been invited as guest speaker at the noon dinner meeting. For the round-table on "Medical Welfare Programs", the following have been invited to participate: Dr. Hilton S. Read, Atlantic City; Dr. C. H. Phifer, Chicago; Dr. Creighton Barker, New Haven, Conn.; Dr. Ernest E. Shaw, Indianola, Iowa, and Dr. R. C. Williams, Washington, D. C.

The Ohio State Medical Association will be officially represented at the conference by Dr. David A. Tucker, Cincinnati, chairman of the Committee on Medical Service Plans, and Charles S. Nelson, Executive Secretary, in addition to Dr. McCormick. Because of the importance of the subjects to be discussed and the excellent program arranged, it is hoped that many Ohio physicians will attend the meeting.

20 ROUND TABLE

THESE FEATURES
ALONE WILL MAKE
THE 94th ANNUAL
MEETING,
CINCINNATI,

*Informal Group
Meetings for Dis-
cussion of Practical
Ways of Solving Every-
day Medical Problems!
An Opportunity for You to
Ask Questions — Exchange
Information — Get Authorita-
tive Opinions and Advice.*

CONFERENCES

**OHIO'S FOREMOST
MEDICAL ASSEMBLY:
DON'T FORGET
THE DATES—
MAY 14-16!**

20 EDUCATIONAL EXHIBITS

*Selected, Graphic
Demonstrations of
Many of the New
Procedures in Clinical
Medicine, Presented in
an Understandable, Prac-
tical Manner! You'll Have
Medical Progress Visualized
For You!*

Columbus Town Meeting Speakers Discuss Ways to Provide Adequate Medical Care for All; Talks Are Broadcast

A DISCUSSION of the subject, "How Can We Provide Adequate Medical Care for All", took place on January 15 at the Columbus Town Meeting in the Y.M.C.A. Auditorium, Columbus, inaugurating the second year's series of public meetings sponsored by organizations and individuals interested in giving the public facts and opinions on various current questions of importance.

The formal hour-long program, which was preceded by an informal discussion by members of the audience which numbered 300, was broadcast over Stations WCOL, Columbus, and WHIZ, Zanesville, a customary arrangement between the Town Meeting sponsors and those stations.

THE SPEAKERS

The formal addresses were made by Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal* and a member of the Committee on Medical Service Plans of the State Association, and Dr. Kingsley Roberts, New York City, director of the Bureau of Cooperative Medicine. Both answered questions submitted by persons in the audience and telephoned in by radio listeners at the conclusion of their talks.

Believing that readers of *The Journal* will be interested in the suggestions and opinions expressed by the speakers on a subject of such importance and one which is attracting such widespread public attention, manuscripts of their talks were obtained and are presented as follows:

Dr. Forman:

"The American medical profession takes great pride in the health of the American people. No people at any time have ever enjoyed the degree of health which we do today. Our death rate goes steadily down; our life expectancy grows steadily longer. For this reason we physicians believe that it is not advisable to borrow schemes for changing our forms of medical practice and protecting public health from abroad, where results are not as good as ours are now.

"Nevertheless, we realize that there are medical and health problems which need to be solved. One of them is the topic under discussion this evening. The medical profession is not static. It wishes to extend medical services of all kinds to all. It believes this can be done on a basis that is not essentially political and which will insure the best possible service.

CITES LINE OF ATTACK

"The attack should be along the following lines which I shall discuss briefly:

"1. Solution of the farm problem with its

attendant improvement in foodstuffs to provide vital qualities in our food which are lacking now.

"2. Improvement in our economic conditions so that all may enjoy an adequate supply of food and therefore a balanced diet.

"3. Initiation of an intensive program of preventive medicine, on the theory that the best way to conquer sickness is to prevent it.

"4. Creation of one central federal health agency to guide those health and medical activities which are properly the function of the national government.

"5. Improvement in and adequate financial support for our state and local health departments.

"6. An intensive campaign of education to arouse the citizens' determination to eliminate preventable diseases and to reduce drastically the ravages of those ailments which can be controlled through prompt, efficient medical care.

"7. Establishment of voluntary medical care programs on a prepayment basis under the direction of the medical profession for people of the low-income groups.

"8. Provision for complete medical care at public expense for the indigents, with physicians and dentists in private practice as the keystone.

"9. Cooperation on the part of the public, administrative agencies, and physicians and dentists in community health and medical programs.

"While we take pride in the health of our nation, we do so in all humility, knowing full well that we physicians did not bring this about alone. This victory is the result of the combined efforts of practicing physicians, dentists, nurses, public health experts, druggists, sanitary engineers, research men, civic-minded citizens, and the multitude of all their helpers. This has been the work of our army against disease.

LIVING STANDARDS IMPORTANT

"But more important than all of this has been the rising standard of American living. Since 1911, for example, the death rates from diphtheria, scarlet fever, measles, and whooping cough have dropped tremendously, and yet we have had a reliable cure and a preventive for only one—diphtheria. Rising standards of living, with the attendant improved food supply and shelter, have given our youngsters the strength to withstand the ravages of these four once common murderers of children.

"Adequate food is far more important to the health of the people than pills and potions. High as our standards of living are, either through ignorance or poverty, most of our people are

definitely undernourished. Even if we had an adequate amount of foodstuffs, they still would not be sufficient because more than a century of robbing our soil has so depleted our farm lands that even our best foodstuffs are lacking in vital qualities, especially minerals.

"Ultimately the health of our nation rests, therefore, in the hands of the farmer. His problems, then, become the problems of us all.

"While attempts are being made to improve the health of our people by solving some of these economic problems, we must initiate other lines of attack. We must see that all are given the benefits of modern medical services.

PREVENTION EMPHASIZED

"Our first attack on sickness must be to prevent it. We should see that our people receive the advantages of preventive medical services furnished by physicians in private practice and through programs jointly sponsored by the medical profession and public health agencies.

"Permit me to cite some examples of the point I am trying to make.

"Let us recall the mass meeting of Columbus citizens some years ago to consider the menace of typhoid fever. There were some then who advocated, as some do now, hiring large numbers of doctors and nurses to treat typhoid victims. Other wiser ones suggested striking at the root of the trouble by preventing the disease. Fortunately they prevailed, Columbus got an improved water supply, and typhoid fever disappeared. That's an example of preventive medicine.

"We have the necessary information at hand to wipe out tuberculosis within the next generation, if the people would but use it. Here in Ohio the medical profession is busy with pamphlets, public addresses, radio talks, and newspaper articles, trying in cooperation with other agencies, to arouse you people to rid yourselves of this dreaded disease. If this is to be done, however, each citizen must put these well-known facts to work for himself: Every person should be skin-tested, and if found to have had the tuberculous infection, should be X-rayed at regular intervals. Those who are found to have the active disease should be isolated until they are not infectious and treated until they are cured.

"Syphilis can be stopped in its tracks. We must not only render each of its victims non-infectious but we must dry up the disease at its source. This is one of our major sociological problems.

PROFESSION TAKES ACTIVE PART

"The medical profession of Ohio is actively engaged in helping the Women's Field Army Against Cancer and other organizations to reduce the death rate of this disease by promoting

early diagnosis and prompt treatment of victims and by issuing warnings about periodic physical examinations so the disease can be detected at an early stage. We may be assured that this can be done from the experience in some places, notably Massachusetts, where the death rate from cancer is showing a definite decline for the first time as a result of such efforts. Here in Ohio the answer lies with each of you. You must be on the lookout for cancer in your own bodies. This kind of life-saving activity becomes a problem in education because the majority of cancer victims need not die if the disease is treated early.

"We have greatly reduced the loss of life among newborn babies and their mothers, and much more can be done in this direction, but it will require the full, intelligent cooperation of all expectant parents.

"Our organizations, like the Ohio State Medical Association and the Columbus Academy of Medicine, concern themselves with the prevention of unnecessary deaths from appendicitis by warning the public of the dangers of taking laxatives for what appears to be a simple stomach ache. Numerous newspaper articles and posters carrying this message have been distributed. I might list indefinitely other infectious diseases, insanity, and occupational health menaces against which we can and do use preventive measures, but time does not permit.

"How shall these, and other preventive services which could be enumerated, be made available to all?

GOVERNMENT AND HEALTH

"There must be, first, an improvement in the organization of our public health departments; second, education of the public to make use of facilities now available; third, establishment of additional facilities where the need is apparent; and fourth, encouragement of physicians to practice more preventive medicine.

"Governmental agencies have a part to play in protecting and promoting public health. This applies to the Federal Government as well as state and local units but of course the Federal Government is, and should be, restricted in its efforts in this field, its function being to serve in an advisory, coordinating capacity in most instances.

"For nearly a hundred years the American Medical Association has urged that the scattered public health functions of the Federal Government be centered in one agency. This recommendation appears again in the newly adopted platform of the American Medical Association. Not only would this avoid duplication and controversies, and save your tax money, but it would make for the efficiency and the saving of human lives. Today there are more than a score of departments, bureaus, and

agencies having to do with health, scattered throughout the various branches of the Federal Government. The creation of one agency to administer these activities would be highly desirable.

"The Ohio medical profession has long endeavored to bring about greater efficiency in our own State Department of Health through legislation which would provide a longer term for the director of health and insure a minimum of political control over the activities of the department and its personnel. We were therefore elated when the last General Assembly, with the support of Governor Bricker, enacted a law, sponsored by the medical profession and allied groups, which is a big step in this direction. Ohio is beginning to have a health department which is concentrating all its efforts on the health of our citizens. It should be granted funds sufficient to carry on its necessary, progressive activities.

"We still are in need of better-trained personnel in many of our county and city health departments, employed on a full-time basis if the need is apparent. These also should be adequately financed.

TREATMENT MUST BE PROVIDED

"Obviously, our preventive program, good as it may become, will not solve the whole problem. What are we going to do for those who become ill either with a preventable disease or ailments which are not preventable at this time—many of which, however, we have reasons to believe our people would not have contracted if they were on a complete and balanced diet. Treatment must be made available to all who need it.

"The population, medically speaking, consists of three classes: (1) Those who have sufficient annual income to provide themselves and their families with medical, hospital and nursing services whenever needed; (2) wage earners whose incomes are sufficient to provide themselves and their families with bare necessities, but who find it exceedingly difficult or impossible to provide medical care and hospital services for unusual or prolonged illnesses; and (3) the indigent or temporarily unemployed who must depend upon the public for all their necessities, including medical care.

"The first group has no particular problem so we need not include them in this evening's discussion, except as they are benefited by our preventive program.

SERVICES FOR THE POOR

"Meeting the medical needs of the third group, the indigents, is a big problem. For years the physicians of the United States have given freely of their time and funds for the care of the sick poor. We have manned the services

of the hospitals without pay. Reliable estimates indicate that the physicians of the United States give free medical services to the amount of \$1,000,000 every day. We physicians have urged and believe that every person needing medical care should be provided with the best and we have attempted to put it into effect. Economic changes in the last decade, however, have brought about such an increase in indigency and relief rolls that the need cannot be met entirely by the charity of physicians and private agencies. Public funds have had to be used to insure for the poor the medical care they require. Doubtless this will have to be continued indefinitely.

"The expense of providing medical relief runs into large sums despite the fact that we physicians have urged conservative, careful planning and the adoption of a method by which we can all cooperate for the common good. State and local governments must recognize this and must make arrangements for adequate financing. If new sources of revenue must be tapped to do so, this should be done. By state law, medical care is defined as a part of poor relief. The responsibility of supplying medical care along with food, clothing, shelter, and other necessities rests on the state and local political subdivisions. If this obligation is met, the medical problems of the indigent can be solved.

"Here, again, we must have proper planning, efficient organization, and cooperation between public officials and the medical profession. A sound medical care program for indigents has been drafted by the Ohio State Medical Association and transmitted to its 88 component county medical societies. It has been put into operation in many communities. This plan permits all physicians of a county who care to do so, to participate, and it gives to the person on relief the right to select his own physician. We have protested time and time again against the practice of some communities—Columbus, for example—which hire a few physicians at a meager salary and assign them to the care of large groups of the poor. We are confident that such a system never produces good medical care because it is impossible for a few physicians to provide adequate services for an unlimited number of patients.

"Incidentally, personal, preventive medical services for the poor also should be distributed in the manner which we have advocated. Physicians in private practice should be utilized, as has been done in the City of Detroit in collaboration with the Wayne County Medical Society—a wise and effective method. Under the Detroit plan, the indigent are provided with preventive services in the offices of private physicians and dentists, each of whom has agreed to set aside certain common office hours for this purpose. For such services the doctors

receive a small fee, and, by concentrating the work, they are able to treat the indigent without loss to themselves. The patient is assured the right to pick his own physician. Evidence of the soundness of this method is to be found in the fact that Detroit, although it is a large industrial city, rose during the depression years from sixth place to first place in America's municipal health list. This improvement came about because the private physician was allowed to provide preventive treatments to the indigent at small fees paid by health authorities while the latter were carrying on an intensive educational campaign.

HOW TO HELP LOW-WAGE GROUP

"This brings us to the economic burden imposed on the second group—the low wage earners—by sickness and accident. Surveys show that the costs to this group are unduly burdensome because they fall unexpectedly and unevenly rather than because they are large in the aggregate.

"For those of limited income who can afford an average sickness but who cannot meet the expenses of a major illness, we must provide a plan in the modern manner by which, through voluntary prepayment, these people can have complete protection against such catastrophes.

"We of the medical profession in Ohio have such plans devised in Toledo, Cleveland and Cincinnati. The question is being studied in other communities and by a Committee on Medical Service Plans of the Ohio State Medical Association. Details, including legal factors, are being worked out so that a constructive approach can be made to the problem.

"California has had such a plan in operation for nearly a year. New York and Michigan have plans drafted and ready to be launched. Similar plans are being studied in other states. Such plans are essentially voluntary group medical service plans under which the subscribers make small monthly payments into a common pool, in return for which they receive complete medical care from the physicians whom they choose and in whom they have confidence. The plans are operated, as they should be, under the auspices of the medical profession in the communities in which they are established.

NEED DATA ON EXPERIENCE

"Obviously, an obstacle to the general adoption of these plans at the present time is the lack of experience and reliable statistics as to the costs of their operation. To make certain that the subscriber does not lose, most of these plans include an arrangement whereby the participating physicians agree to bear the losses, if any. Therefore, they must be restricted to persons in the low-income brackets. The par-

ticipating physicians receive their fees on a pro rata basis for the work they have done according to the funds available. In this way the subscriber cannot lose and the physician is assured some payment for his services in all cases. In the near future and after experience elsewhere has been analyzed, one or several plans of this kind may be started in Ohio by the medical profession to meet the needs of the small wage earner.

"Similar plans to provide the limited income groups with hospital services already are in operation in Ohio. Also, the Ohio State Medical Association and the Farm Security Administration are cooperating on group medical care programs for farmers, who are being aided through loans made by the latter agency as part of its rehabilitation program.

"These are the methods and suggestions which, in the opinion of America's physicians, offer the best solution to the problem of providing medical care and hospital service to that group of urban and rural citizens who are essentially self-supporting but who are in need of some assistance in meeting medical costs.

"The medical profession believes in the soundness and workability of the recommendations which I have attempted to set forth; it is taking the initiative in making them realities; and it solicits your approval and support, without which, of course, our efforts will be futile."

Dr. Roberts:

"How can we get the best medical care for all?

"Naturally there is no answer to that question possible in 13 minutes. The statement, however, presupposes inadequate care today. It is undoubtedly true that hospitalization is not being used as frequently as it should be; that consultation is not being held as often as the highest standards of health care demand; that immunization and other health conservation measures are not being carried out to their greatest effectiveness. It is likewise true that a large part of our population suffers poor health and resultant loss of income thereby.

"Those in the community who cannot pay any of their sickness costs have to be cared for at the expense of the community. Those who pay the largest income taxes can well afford and do pay the largest sums for their health care.

"With neither of these two classifications am I particularly concerned at this time, because a large group of our citizens fall into income brackets in between.

"I am particularly interested in devices by which people can get more and better medical care no matter how they pay for it. Just get-

ting more medical care, if it is poor, is a dangerous procedure.

ADVOCATES GROUP PURCHASE PLAN

"To my mind, the method by which this can be accomplished is a comparatively simple arrangement, evolutionary rather than revolutionary, by which the best that medical science has to offer can be brought within the reach of those who want it and who, if given an opportunity to place such care in their budget, would be glad to pay for it.

"This device consists of combining the group purchase of health care with the group method of distributing it. In other words a method which sets up a system which will permit the budgeting of complete health expense and the purchasing of health care from the most economical source, namely, a group of physicians working together under a system which is called group medical practice.

"The Crile Clinic and the Mayo Clinic are two outstanding examples of privately organized medical practice groups. As a matter of fact the same principle of organization is to be found on the staffs of our tax maintained and voluntary hospitals. The staffs in these two famous clinics and the staffs in most ordinary hospitals are composed of groups of doctors whose experience and training make them representative of the various specialties in medical practice and whose efforts are coordinated. In each instance, as far as the individual physician is concerned the patient is treated without thought of finances. If an X-ray is needed it is gotten. If a consultation is indicated it is held. If laboratory data is wanted, as much as necessary is obtained. Costs to the patient are not a major factor. This is group medical practice although it is not always called that. Such service from well known private clinics is expensive and few but the comparatively rich man can afford to go there. Service from the clinics of voluntary and tax maintained hospitals is free and therefore dubbed charity care. Neither of these two extremes of group medical practice has been geared to meet the needs of about thirty million of our population. This thirty million is composed of our most productive workers and their dependents. They are to be found in the shops, on the farms and in small businesses.

CONTENDS PRINCIPLE IS SOUND

"Now if group medical practice is a sound and ethical procedure in the care of the medically needy and the well-to-do, why is it not equally ethical and sound for another large part of our citizens. I believe it is.

"If these thirty million can apply the spread-cost, share-cost system to the budgeting of their health expenses they can maintain their eco-

nomie status as self-supporting citizens even in the face of catastrophic illness . . . and . . .

"If the doctors abandon the present disorganized system of practice which some people like to euphemize by calling it 'private' or 'personal' or 'the only ethical' one, there is still opportunity for better medical care for all.

"The costs of health care are mounting because new discoveries are bringing forth new methods and drugs which are not cheap . . . as for instance radium and deep X-ray therapy. Doctors have to equip their offices with very costly apparatus which is also costly to maintain. Hospitalization is expensive and needed more rather than less as time goes on. Drugs and sera are a major item as is oxygen, vaccines, anti-pneumococcic serum and the like. Some spokesmen for organized medicine say that these costs are the reason for the present economic unrest so evident to the profession. This is only a half truth. But even if it were the whole story it only puts the profession in the embarrassing position of either not using these adjuncts to modern health care or else devising a method whereby total sickness expense can be kept within the range of those who wish to buy it.

"Obviously then, the problem of the medical profession is to reduce the cost of health care . . . not cheapen it. My feeling is that this is one of organized medicine's major problems and that unless they meet it and solve it, a solution will be forced upon them which will not be to their liking.

COORDINATION NEEDED

"There are several reasons for maintaining that only groups of doctors, working together, can furnish medical care that will meet the essential requirements of being complete in form, good in quality and reasonable in price. The most important of these reasons is that medical science and methods of practice have advanced with such rapidity that the lone physician can no longer cover the entire field of medical knowledge. Organized groups of physicians representing all branches of medical science must replace the individual practitioner if patients are to receive accurate and thorough examination and treatment and if the prevention of disease is to become an outstanding feature of medical practice. There is no present dearth of specialists, but there is so little coordination in their work that it is not of maximum value even to those who can afford to pay for it. Group practice promotes the consultation of physicians and frequent consultation is imperative if medical care is to be of the highest quality.

CITES NEED FOR ECONOMY

"Another important reason for advocating group practice is economy of operation. The

equipment necessary for anything approaching adequate diagnosis and treatment is extremely expensive. Private practitioners either cannot afford such equipment or they must charge large fees to cover the cost. Physicians working together may share the cost of equipment and thus keep their overhead relatively low.

"The saving of time and energy is still another strong argument in favor of group practice. Under present conditions physicians must devote a disproportionate amount of attention to building up and maintaining their private practices. Freedom from the worry and stress of financial and administrative detail would enable them to concentrate on professional matters.

"Groups of physicians can distribute their services to a larger number of people than can the same number of doctors working independently . . . and their services will not only be more efficient from the professional standpoint, but will be less expensive to the individual patient.

"On the other hand it becomes evident that groups of people organized through their work, social activity or community could therefore purchase their health care from a group practice unit more effectively and economically than they are at present doing. Group purchase and group practice units may be started by existing forces such as Farm Bureau cooperatives, employers, unions, fraternal organizations, private doctor groups, endowments and medical societies.

GOVERNING PRINCIPLES

"Such cooperative health organizations should be non-profit in structure. They must have the most expert advice available. They cannot be underpriced and must study their experiences very carefully. Such organizations must attract the best types of physicians. The income to them must be fair and what is more important, . . . sure. They may be paid for their services either on a fee for service basis, a unit plan or a salary. We must remove the stigma from the salaried doctor. It is an insult to the intelligence of thousands of extremely competent physicians to say that a man is less diligent or a poor practitioner because of the method of his remuneration.

"This, to my mind is the soundest method of obtaining better medical care for a large part of our population, which today has either none or very little, either because it cannot pay for what is available or because it is not accustomed to accepting charity. Such a system of health care must provide prepayment of health expense on the spread-cost, share-cost principle. But it must do something vastly more important than establish a mass of policy holders who will be forever clamoring at the doors of the administration for every drop of blood that they can wring out of their contracts. The partici-

pants and beneficiaries of the system must be forced to share the responsibilities of administration with executives of their choosing. Just hospitalization or general practitioner care has been demonstrated unsound and uneconomical as well as being poor medical practice.

A CHALLENGE TO ALL

"This is where the consumer movement and the forces of organized medicine meet. Their problems are mutual, their aims the same and the materials with which they have to work are identical. A failure to work out the answer will cast serious aspersions on each. It is up to organized medicine to come forward with its answer immediately and indicate its willingness to put better care within the reach of all. And equally, it is up to you as consumers to demand that such a system of medical care and medical purchase be offered you."

Fishbein-Roberts Debate

An unusually interesting joint meeting of the Academy of Medicine of Cincinnati and the Cincinnati Dental Society is to be held at Cincinnati, Tuesday evening, February 6. Dr. Kingsley Roberts, medical director of the Bureau of Co-operative Medicine, New York City, will discuss group medical practice and Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, will review the present program and policies of the organized medical profession.

National Census Started

The Sixteenth Decennial Census of the Bureau of the Census of the U. S. Department of Commerce will be taken beginning April 1. The Bureau requests the cooperation of physicians in furnishing information requested, promptly and accurately. By act of the Congress, each individual is obligated to answer the various questions propounded. As pointed out in an article in the organization section of *The Journal of the A.M.A.*, pages 2155-6, December 9, 1939, issue, data compiled by the Bureau as a result of the census should be of inestimable value to the public and the medical profession. Enumerators and other employees of the Bureau are under oath never to reveal any of the information which goes through their hands either to individuals or to any society, association or government department. Reports cannot be used for the purposes of taxation, regulation or investigation.

Care should be taken to determine whether the census enumerator is authorized. There have been reports already of fake census enumerators. No information should be disclosed until the census-taker presents credentials issued by the Bureau of the Census.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

At the risk of being branded a pest, we would like to remind physicians who have not as yet paid their 1940 State Association dues to the

Gentle Reminder To Those Who Haven't Paid 1940 Dues

Secretary - Treasurer of their local medical society for forwarding to the Columbus office—

That, the membership year of the State Association is the calendar year, meaning that a physician is not a member, technically, of the State Association until his 1940 dues are received by the Headquarters Office, Columbus;

That, certification of membership cannot be made to the American Medical Association until a physician is entered on the membership roster of the State Association, meaning that A.M.A. membership hinges on State Association membership;

That, a new edition of the American Medical Directory is being compiled and will go to press in the not distant future, meaning that those who are delinquent with their 1940 dues when the directory goes to press will not be designated as members of medical organization and their names will appear in small type;

That, there are dozens of additional good reasons why those who have not paid their 1940 dues should give the matter prompt attention.

Get busy, doctors! Find out at the next meeting of your medical society what organized medicine can and must do with that basic weapon of democracy—the ballot.—Illinois Medical Journal.

Our hat is off to the *United Press*, one of the leading news services, in recognition of its wisdom in calling to the attention of its bureau

U.P. Policy on Medical News Real Break for Reading Public

chiefs and division managers the long-standing policy of the service with respect to the reporting of medical and health developments and events, and adding another “don’t” to the list.

This is the bulletin which the bureau and division managers received recently:

“It seems advisable to restate our traditional policy concerning handling stories of ‘cures’ or other medical developments.

“This policy, which dates back more than twenty years, is never to call anything a cure,

or in fact give any publicity to any remedy of any description, without a thorough investigation.

“This rule is now being strengthened by the following:

“Under no circumstances put any story on the leased wire about a remedy. If the bureau manager is convinced that the story has merit, he should overhead it to New York for investigation and consideration there.”

Doubtless the other news services have adopted a similar policy—if not, they should. Also, we recommend the sound advice contained in the above orders to all newspaper managers, for it is just as important that the principles enumerated be applied to local reporting.

Here again is an opportunity for local medical societies to help by setting up a committee which can assist the press in enforcing a policy that will protect readers against inaccurate and harmful material.

Until there is evidence to the contrary, we insist that education is the answer to all the problems of the American physician, be they economic or scientific.—Jackson County Medical Society Bulletin, Kansas City, Mo.

“Talk is not cheap; but silence is golden.”

An unusual increase in the number of suits against physicians for alleged malpractice in sections of the state ought to serve as a warning to physicians that the old proverb quoted above is just as true today as the

Best Attack On the Malpractice Problem Through Prevention

day it was uttered.

Lightning strikes but little faster than an epidemic of malpractice suits. The question is one which every physician must keep foremost in his mind. There are a number of points which deserve his serious consideration.

If proper preventive measures are used, there would be few if any malpractice suits. If every physician would exercise due caution and good judgment, keep adequate and accurate records, and learn that a wagging tongue may get him and others into trouble, there would be no malpractice problem.

Foolish is the physician who fails to protect himself with professional liability insurance, written by a reputable insurance company.

In times of uncertainty when some persons have their hands out for “easy” money and juries are swayed by emotionalism, not by facts or law,

the physician who takes the attitude "it can't happen to me" is short-sighted, to say the least.

When professional liability insurance companies increase their premiums and decrease their coverage after analyzing the actuarial tables and current experience, the physician had better spend more time trying to discover and correct the causes; less time cussing the insurance companies. To put it another way: Greater care and caution on the part of a greater number of physicians will curtail the number of malpractice suits. Decrease in the number of suits will enable insurance companies to reduce premiums; expand coverage. Lower premium rates and greater protection without additional cost will mean money in the pocket for the physician.

"An ounce of prevention is worth a pound of cure."

The family doctor is aware that his status is changing and he desires to be one of the controlling factors in any new program.—Nathan B. Van Etten, M.D., President-Elect, American Medical Association.

Raymond Clapper, Washington columnist for the Scripps-Howard Newspaper Alliance, was one of the speakers at the recent Indiana State Conference on Social Work. Part of Mr. Clapper's talk on "Social Work and the Press" was published in the December, 1939, issue of *Survey Midmonthly*.

Commenting that it would be well for social workers to cultivate good working personal relations with reporters and editors, Mr. Clapper offered the following illustrations and advice, thereby driving home a point which should be more readily recognized by the medical profession:

"Perhaps the busiest man in the United States," said Mr. Clapper, "is President Roosevelt, yet through crises and through doldrums he gives unfailing attention to his semi-weekly press conferences. He permits nothing to interfere with them and he gives the reporters as much time as they require for their questions. In fact in the most tense periods he is apt to be even more painstaking in his attention to the press because he knows how vital it is to have public opinion moving in his favor.

"The same is true of lesser officials. A responsible newspaperman with questions of general importance has little difficulty in clearing with a Cabinet officer either directly or through an assistant. That is true too with Senators and Representatives, and with state and local politicians. They are never too busy to explain the background of a situation to a responsible newspaperman. They know through long experience that they can trust reporters and editors, and that it is better to give a full picture, even though

part of what they say is confidential, than to risk an editorial or a news story written through lack of information and understanding.

"This working relationship between the politician and the press could well be emulated in many other fields of activity. Business would have been much better off long ago had it adopted a similar policy. Businesses alert enough to do so have found it greatly to their advantage. The medical profession has been negligent in this regard. Every working newspaper reporter has his own personal stories to tell about the difficulties of obtaining accurate information from hospitals—information which the patient usually would be perfectly willing to have given out. Here I know it will be said that reporters are prying into private affairs which are none of their business. Yet as a matter of fact the reporter in most cases is seeking simply the details which friends of patients are anxious to learn about, and which he finally obtains by word of mouth correctly or otherwise—often otherwise."

Regardless of the size of the community, a county medical society today is not completely organized unless it has a committee on press relations. If your society has made no effort to co-operate with your local newspapers and held conferences with local editors for the purpose of talking over questions of mutual interest and trying to arrive at a common understanding as to what can or cannot be printed, don't blame the press if the medical profession seemingly is getting a bad break on news and in editorial comments.

Every medical society functions by means of its committees; and to serve on a committee is both a privilege and a duty.—Journal of the Medical Society of New Jersey.

In addressing the White House Conference on Children in a Democracy held at Washington the week-end of January 19-21, President Roosevelt made the following statement which should afford some encouragement to those who have been displeased at more than one New Deal policy and program:

Raise in Income the Solution, Not Grants in Aid, Says F.D.R.

"I agree with you that public assistance of many kinds is necessary", said the President, "but I suggest to you that mere grants in aid constitute no permanent solution but that we should address ourselves to two policies: First, to increase the average of incomes in the poorer communities and areas, and, second, to an insistence that every community and area pay taxes in accordance with its ability to pay."

The President's comments are commendable on three counts. He gives the policy of grants in aid a well-deserved poke in the nose. He recognizes that palliatives will not solve problems which can be met only through economic readjustments. He emphasizes local responsibility.

Apply these three principles to the problems

of health and medical care about which we are hearing so much, if you please! They point the way to a sound approach, sans the Wagner Bill and other crack-pot theories.

The measure of success of any organization is the degree of interest and support which it receives from its members. On the other hand, the responsiveness of the members depends upon the wisdom and activity of the leaders whom they choose.—*Journal of the Medical Society of New Jersey.*

On January 15 the subject, "How Can We Provide Adequate Medical Care For All," was discussed at the Columbus Town Meeting, part of

Medical Societies Must Be Prepared To Supply Speaking Talent

the forum discussions being broadcast over Station WCOL. This was one of the series of meetings being presented by a group of Columbus citizens especially interested in civic, social and governmental questions. The project has caught on in Columbus. Its programs have attracted a capacity visible audience; a still larger radio audience.

The editor of *The Ohio State Medical Journal*, representing the Columbus Academy of Medicine unofficially, was one of the scheduled discussants. Sponsors of the Town Meeting quite correctly consulted officials of the Columbus Academy regarding the program and the discussants. We mention these facts solely for the purpose of emphasizing a point, namely:

Medical societies in every community must be prepared to supply talent for discussions of this kind.

When groups desiring to learn about and discuss medical and health questions approach the medical profession for assistance and advice, they deserve the cooperation of the profession. The profession must be prepared to make constructive suggestions and furnish speakers. If it doesn't, speakers who are misinformed or biased may be chosen. This is a challenge to all our medical societies.

Don't be fooled into believing that the public is not interested in public health and medical care. During recent weeks a questionnaire was distributed at various Columbus churches. It listed 16 different subjects of current interest and asked churchgoers to indicate three which they would like to hear discussed and felt deserved public consideration. When the votes were counted, the topic, "Adequate Medical Care for the Poor", headed the list.

The medical profession shirks its responsibility if it does not use the facilities of its local organizations to participate in discussions and programs

designed to bring out ways and means of meeting health and medical problems.

Also, the individual physician in his daily practice can play an important role. We believe the point has been well expressed in the following editorial in the *Cleveland Academy of Medicine Bulletin*:

"During the coming months of pre-election activity much will be heard about provision of medical care for the under-privileged. It is a constructive plan or a high-sounding political slogan depending on the motives of the speaker. Fortunately the American public is becoming conditioned to propaganda. To an increasing extent it is able to discount rant and arrive at dispassionate conclusions about questions up for consideration.

"Where suggestion and criticism are valid, good results are bound to accrue; where they are unfounded, they defeat their own purpose. With the microscope of public opinion trained upon any minority which lacks medical care, if such there be, it will not long be deprived of needful attention.

"The public, however, needs to hear more of the doctor's viewpoint unmixed by that of the politician. Each physician should take the trouble to listen to his patients' opinions while honestly trying to analyze any maladjustment of medical care to any given group within his knowledge. At the same time he can build up in the lay mind a more intelligent understanding of the questions at issue. Utopias are in the discard, while well considered change is the trump card of progress. By all means let us seek a remedy for any ills that exist, but let us not be railroaded into hasty upheaval of medical traditions in support of a political slogan."

Democracy was no miraculous improvisation, no full-grown energy, but a growth and development. Overnight perfectionists please observe and preserve.—*New York Times.*

The report of Surgeon General Parran of the U. S. Public Health Service on the health of the nation for the year 1938, referred to elsewhere in

Why Tinker When the Engine Hits On All Eight?

this issue of *The Journal*, is an interesting document in several respects.

It shows that the people of the United States at present are afforded greater health protection and are enjoying a degree of health greater than at any previous period in the country's history. Rightly enough, Dr. Parran has said repeatedly that we must not be complacent because of this favorable condition. Obviously, advances which have been made must be maintained and additional progress should be the nation's goal. Yet, when one ponders over what great advances have been registered without too much regimentation and at comparatively moderate costs, the question might be asked: Why all the agitation for a billion dollar health

NAMES OF PHYSICIANS WHOSE 1940 DUES ARE UNPAID MUST BE REMOVED FROM MAILING LIST OF THE JOURNAL AFTER THIS ISSUE; MAILING OF THE JOURNAL WILL BE RESUMED UPON RECEIPT OF DUES BY THE COLUMBUS OFFICE

To comply with United States Postal Regulations and the provisions of the Constitution and By-Laws of the Ohio State Medical Association, *The Journal* will be compelled to remove from its mailing list AFTER THIS ISSUE, the names of all physicians whose 1940 dues have not been received at the Columbus Headquarters Office so that their names can be entered on the official membership roster.

As soon as a physician's 1940 dues are received at the Columbus office his name will be restored to the mailing list of *The Journal* and he will again receive his copies of *The Journal*.

Payment of dues during February will assure receipt of the March issue, and subsequent issues of *The Journal*.

Dues should be paid to SECRETARY-TREASURERS OF COUNTY MEDICAL SOCIETIES who will transmit them to the Columbus Office. State Association dues for 1940 amount to \$7.00.

program? The efficiency and effectiveness of the activities now underway have been proved. Why new mechanisms? Stepping up of present programs when the need is proved, under careful supervision and economical administration, will meet future needs.

In public comments, Parran has condemned "political control of health activities as it exists in some states today", referring especially to the rapid turnover of personnel because of partisan political considerations. In so doing, the Surgeon General cites one of the most serious objections to systems of compulsory health insurance or other schemes which would make government the health dictator of the people. Is the Federal Government any less susceptible to political tinkering than any particular state? Would centralization of health activities at Washington solve the problem of political interference? Certainly not.

In the long run, cooperation between the states and the Federal Government, each taking its proper role and in line with procedures which have proved their worth, will maintain the record which has been made and yield additional dividends. Revolutionary changes would threaten the whole structure and might undo much of the good which has been accomplished.

Cincinnati—"The Problems of Medical Care" was the subject discussed by Dr. Parke G. Smith, President of the Ohio State Medical Association, at the first meeting of the January lecture series at the Wise Center.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16.

American Medical Association, New York, June 10-14.

Northern Tri-State Medical Association, Battle Creek, Mich., April 9.

American Academy of Pediatrics, Region 1, Washington, D. C., April 4-6.

American Orthopsychiatric Association, Boston, Feb. 22-24.

American Psychiatric Association, Cincinnati, May 20-24.

Annual Congress on Medical Education and Licensure, Chicago, Feb. 12-13.

International College of Surgeons, U. S. Chapter, Venice, Fla., Feb. 11-14.

National Conference on Medical Service, Chicago, Feb. 11.

National Tuberculosis Association, Cleveland, June 3-6.

Ohio State University College of Medicine Post-Collegiate Assembly, Columbus, March 29-30.

Youngstown—Participants in a symposium on tuberculosis conducted by the Junior Chamber of Commerce over radio station WFMJ, included: Dr. E. E. Kirkwood, Dr. S. G. Patton, Dr. W. W. Ryall, Dr. Gordon G. Nelson and Dr. Edward Reilly.

Medical Licenses Granted 82 at December Meeting of State Board; Several Disciplined; Officers Elected

LICENSES to practice medicine and surgery in Ohio were granted 52 medical school graduates, who passed the December examinations, at a meeting of the State Medical Board at Columbus on January 9. Licenses were also granted through reciprocity to 30 physicians who have practiced in other states.

The Board also granted certificates to 4 osteopaths, 4 chiropractors, 15 mechano-therapists, 1 naprapath, 3 chiropodists, 1 cosmetic-therapist, and 22 masseurs. Failures in the examinations numbered 29. They were 4 doctors of medicine, 1 osteopath, 3 chiropractors, 8 mechano-therapists, 1 naprapath, 2 chiropodists and 10 masseurs.

The licenses to practice medicine and surgery of Dr. Charles O. Bayless, Dayton, and Dr. Howard H. McClaran, Toledo, were revoked, and the license of Dr. Addison G. Moore, Indianapolis, Indiana, suspended for one year, after hearings of charges of grossly unprofessional and dishonest conduct. The Board also suspended for five years the medical and surgical licenses of Dr. C. Mason Daugherty and Dr. Raymond C. Bush, Hudson, but provided that reconsideration of these suspensions may be predicated upon modification of sentence by the court which convicted them of a felony. The certificate of Clarence E. Bowers, Circleville, chiropractor and mechano-therapist, was revoked for violation of the statute and regulations governing limited practitioners.

NEW OFFICERS ELECTED

The following officers were elected by the Board for the ensuing year: Dr. J. H. J. Upham, Columbus, president; Dr. Roy C. Hunter, Wapakoneta, vice-president; Dr. William M. Hoyt, Hillsboro, treasurer, and Dr. H. M. Platter, Columbus, secretary. Other members of the Board are Dr. L. T. Franklin, Chillicothe; Dr. C. W. Waggoner, Toledo, and Dr. Thomas H. George, Cleveland. A successor to Dr. Lee Humphrey, a member of the State Medical Board for 29 years, who died December 30, had not been appointed by Governor Bricker when *The Journal* went to press.

Professor S. E. Razor and Miss Clara F. Brouse, were re-appointed entrance examiner and chief nurse examiner, respectively.

Dr. Platter presented to the Board the 1939 report of its inspectors, Frank A. Dorsey, Columbus, and Lawrence A. Dieterich, Cleveland. The report showed that 121 cases were investigated during the year; 1,012 calls made; 36 cases filed; 33 convictions obtained. Cases pending from 1938 numbered 23 and 5 cases pending from 1938 were

dismissed. Fines assessed following court convictions totaled \$1,300, and fines amounting to \$2,962 were collected during the year, including those in cases held over from 1938.

MAKE HIGH AVERAGES

The highest grade in the examinations to practice medicine and surgery was made by Dr. Robert J. Cathcart, Cleveland, a graduate of the University of Edinburgh, whose grade was 89.8 per cent. Dr. Henry W. Brown, Jr., Mt. Vernon, a graduate of Hahnemann Medical College, was second with 89.5 per cent, and Dr. John R. Lutz, Cleveland, also a graduate of Hahnemann Medical College, was third, with 88.9 per cent.

Those granted medical and surgical licenses following examinations were:

Ozro Bridge, University of Cincinnati; John W. Deever, Dayton, Albany Medical College; Arthur F. Passarelli, Youngstown, Georgetown Medical College; Frank H. Harris, Martins Ferry, George Washington Medical School; Henry W. Brown, Jr., Mt. Vernon, Dale L. Carlberg, Cleveland, John R. Lutz, Cleveland, Sigmund J. Telerski, Cleveland, Louis Ulin, Cleveland, William W. Wheeler, Cleveland, Hahnemann Medical College; Robert G. King, Alliance, Harvard Medical School; Walter S. Price, Columbus, Jefferson Medical College; Francis G. Kravec, Cleveland, Loyola University.

Joseph W. Hamilton, Mt. Vernon, Evelyn M. Steere, Lima, Northwestern University; Harold J. Stoen, Cleveland, Rush Medical College; Otto E. L. Schmidt, Cleveland, Stanford University; Wilson P. Shortridge, Toledo, Temple University; Walter E. Hambourger, Cleveland, University of Chicago; Claire E. Stout, Dayton, University of Pennsylvania; Manning G. Harnick, Cleveland, Allen M. Sakler, Cincinnati, University of Toronto; Hugo Hecht, Cleveland, German University; Angelo Barbieri, Columbus, Royal University of Genova; Kurt Eichwald, New York City, Eugene Kleinhandler, Newark, N. J., Arnold Loevy, New York City, University of Berlin; Bruno Leichtentritt, Cleveland, University of Bonn; Karl Rosenthal, Cleveland, University of Cologne.

Robert Cathcart, Jr., Cleveland, University of Edinburgh; Ernst Gottschalk, Cleveland, University of Giessen; Michael Rabinowitsch, Cleveland, University of Halle; Lothar Z. Hoffer, Cleveland, University of Hamburg; Emil Mosbacher, Cleveland, University of Heidelberg; Erich M. Hofmann, Akron, University of Jena; Erwin Froelich, Cleveland, University of Kiel; Walter Bonheim, Columbus, University of Koenigsberg; William H. Gitman, Dayton, Uni-

versity of Lausanne; Heinemann Goldschmidt, New York City, University of Leipzig; Gerhart Peltesohn, Columbus, Martin Sondheimer, Kew Gardens, N. Y., Leo Weiss, Toledo, University of Munich; Michael E. Cristo, Youngstown, University of Rome; Emil Friedlander, Cincinnati, University of Rostock; Arthur Baer, New York City, University of Strasbourg; Paul Blatt, Cincinnati, Friedrich Deutsch, Cleveland, Piroška Selymes, University of Vienna; Adolf Eisenheimer, Toledo, Paul M. Kast, Cleveland, University of Wurzburg; Carl Wiesel, Lexington, Ky., University of Michigan.

Those granted medical and surgical licenses through reciprocity were:

Edmund R. Blower, Akron, Yale University; George T. Booth, Toledo, University of Michigan; Eugene D. Brochu, Cleveland, Boston University; Philip I. Burack, Columbus, College of Physicians and Surgeons, New York; Samuel J. Campbell, Bucyrus, Tulane Medical School; William S. Clark, Dayton, St. Louis University; Thomas A. Coates, Warren, St. Louis University; Henry M. Duckwall, Dayton, St. Louis University; John P. Eichhorn, Cleveland, University of Michigan; Maurice B. Gordon, Cleveland, University of Buffalo; Harry R. C. Groppe, Toledo, University of Illinois; Homer P. Howell, Dayton, Northwestern University; Harold I. Humphrey, Cincinnati, University of Pennsylvania; Herman Insel, Toledo, George Washington Medical School.

John W. Kinley, Cuyahoga Falls, McGill University; David D. Krupp, Toledo, Tufts Medical College; Edwin C. Lane, Cleveland, University of Maryland; Walter H. Matuska, Gallipolis, Washington University; Catherine G. McGregor, Kent, University of Minnesota; Jack F. Parsons, Leipsic, Creighton University; Muriel M. Petioni, Wilberforce, Howard University; Jack Srulowitz, Belpre, Medical College of Virginia; Harry S. Stahr, Lima, University of Nebraska; Theodore Stonehill, Cleveland, University of Iowa; Elias Stein, Cleveland, Long Island College of Medicine; Kenneth L. Stratton, Portsmouth, University of Louisville; James C. Strong, Jr., Cincinnati, University of Colorado; Sam Tetalman, Cleveland, St. Louis University; Charles C. Voorhis, Cleveland, Indiana University; Ralph L. Zucker, Toledo, Washington University.

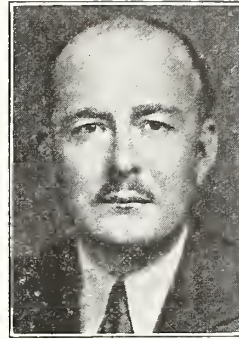
Medical Corps Examinations

Examinations for appointments as first lieutenant in the Medical Corps of the U. S. Army will be held March 18-22, it was recently announced by Brigadier-General Dana T. Merrill, commanding general of the Fifth Corps Area, Fort Hayes, Columbus. Applications and further information can be obtained by addressing the Adjutant General, War Department, Washington, D. C. March 2 is the deadline for the acceptance of applications.

Dr. Dorst New Dean of Cincinnati University, College of Medicine

Dr. Stanley E. Dorst has been appointed Dean of the University of Cincinnati College of Medicine, chief of staff of Cincinnati General Hospital and director of Holmes Hospital, succeeding the late Dr. Alfred Friedlander.

A graduate of Wittenberg College in 1919 and the University of Cincinnati College of Medicine in 1923, Dr. Dorst served his internship at Lakeside Hospital, Cleveland. From 1924 to 1926 he was resident physician at the Cleveland Clinic. Since 1926 Dr. Dorst has been a member of the University of Cincinnati medical faculty. He was director of the Louis Kuhn Diagnostic Laboratory from 1926 to 1928. Later he became associate professor of medicine and in



DR. DORST

1937 was made assistant dean. Dr. Dorst was appointed acting dean of the College of Medicine following the death of Dr. Friedlander.

Dr. Dorst is a member of the Cincinnati Academy of Medicine, Ohio State Medical Association, Fellow of the American Medical Association, diplomate of the American Board of Internal Medicine, member of the Central Society for Clinical Research, the American Society for Clinical Investigation and the American Society for the Advancement of Science. He is 42 years old and has one son.

(Photo by W. Carson Webb.)

Hit Vitamin Sales By Grocers

The following resolution was adopted at the 41st annual convention of the National Association of Retail Druggists held recently at St. Paul, Minnesota:

Whereas, since the comparatively recent discovery and developments of vitamins, many avenues of distribution such as mail order houses, grocers, etc., are selling such vitamins, and

Whereas, the sale by such outlets is detrimental to public welfare; therefore, be it

Resolved, that in the interest of public health the sale of such products should be restricted to drug stores, and be it further

Resolved, that until such time as proper safeguards to circumscribe the sale of vitamin products can be promulgated, the N.A.R.D. specifically requests vitamin manufacturers to restrict their sale to drug channels, and be it further

Resolved, that a copy of this resolution be sent to the American Medical Association and to all state medical societies.

Erie County Medical Society Holding Series of Clinical Programs

Forty physicians attended the opening session, January 17, of the Inter-County Clinical Programs being sponsored by the Erie County Medical Society at the Hotel Rieger, Sandusky. Dr. Henry J. John, Cleveland, spoke on "Principles of Treatment of Diabetes". There will be three more meetings, all on Wednesday evenings, beginning at 8:30 o'clock. Dr. C. E. Engler, Cleveland, will discuss "Sinusitis", February 14. "The Operative Treatment of Uterine Prolapse, Cystocele and Rectocele" is the subject to be presented on March 13 by Dr. J. L. Reycraft, Cleveland. On April 17, Dr. Walter G. Stern, Cleveland, will speak on two topics, "Is Pre-Paid Medical Insurance Necessary Today? If So, a Practical Plan for the Same", and "The Estimation of Disability Following Injury". At the same session, Milton Landy, referee of the State Industrial Commission, will discuss "The Legal Phase of State-Wide Prepaid Medical Insurance."

This is the second series of lectures sponsored by the Erie County Medical Society. Invitations have been sent to members of the Ohio State Medical Association in Seneca, Huron, Lorain, Ottawa and Sandusky counties. There is no registration fee, and all physicians are cordially invited to attend.

State's Welfare Programs Aid 550,000 in 1939 at Cost of \$57,000,000

Ohio's widespread welfare and public assistance programs administered by the State Department of Public Welfare affected the lives of over 550,000 persons during 1939, according to a recent announcement of Director Charles L. Sherwood. Cost of financing these programs amounted to over \$57,000,000 during the year, he said, exclusive of funds spent by local areas for poor relief.

The state distributed \$10,000,000 to local areas for poor relief. The peak load was during September, with 119,761 cases, including 356,000 persons. There were 36,000 persons in state institutions at the close of the year. Their maintenance for the year cost the state about \$8,000,000, and \$375,000 additional was spent for betterments. A total of \$32,000,000 was paid out to 125,000 old age pensioners during 1939. Grants amounting to \$5,500,000 were disbursed under the aid to dependent children program, providing for 30,000 children, representing over 10,000 homes. Other public assistance programs provided for 4,000 needy blind persons and over 3,500 crippled children. Cost of the blind program was \$970,000. Approximately \$500,000 was spent in operating the crippled children program.

Broadcast for Farmers Arranged by Public Education Bureau

"Good Health—Good Farming" was the topic of a radio dialogue featuring Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, and Mr. Ted Rupert, farmer and fieldman for the Agricultural Adjustment Administration, presented over station WLW, Cincinnati, Friday noon, January 26, as part of the daily program, "Everybody's Farm Hour."

In response to queries from Mr. Rupert, Dr. Smith pointed out the economic value of good health to the farmer and listed some of the rules for disease prevention and health preservation, stressing the importance of immunization measures and periodic physical examinations. He suggested there might be an analogy between the farmer's soil conservation practices and the proper measures for keeping well.

The program was prepared jointly by the Bureau of Public Education of the Ohio State Medical Association and the news and radio department of the Ohio Agricultural Conservation Commission. Mimeographed copies of the dialogue are available at the State Association office.

Membership in the Ohio State Medical Association reached an all-time high December 31, 1939, with 6,388, an increase of 260 over the membership on December 31, 1938, which was 6,128. On January 23, 1940, dues of 4,465 members had been received at the State Headquarters Office, compared with 4,346 on the same date a year ago, an increase of 119.

Christ Hospital Appointments

The following house staff appointments for the coming year were recently announced by Dr. M. F. Steele, superintendent of Christ Hospital, Cincinnati: Residents in medicine, Dr. Mervin E. Steves and Dr. George E. Osler, University of Cincinnati; residents in surgery, Dr. C. Morris Oxley, University of Cincinnati, and Dr. Benjamin L. Hawkins, Ohio State University; interns, Dr. Edwin Ash, Dr. Richard R. Buchanan, Dr. George A. deStefano, Dr. Harry K. Hines, Dr. George R. Hodell, Dr. Stanley B. Minish, Dr. John W. Schonwald, University of Cincinnati; Dr. George H. Brown, Northwestern University; Dr. Donald W. Jones and Dr. George X. Schwemlein, Ohio State University; Dr. Henri LeClaire, Loyola University; Dr. Jerome F. Paulson, University of Wisconsin.

Health Conditions in Nation Show Big Improvement; Death Rate Lowest Ever Recorded, Official Report Reveals

“HEALTH conditions in the United States continued to improve during the year and the death rate for 1938 was the lowest ever recorded,” Dr. Thomas Farran, Surgeon General of the U. S. Public Health Service, stated in his annual report which was made public on January 7.

Diseases of the heart, cancer, cerebral hemorrhage (including embolism and thrombosis), nephritis, all accidents, pneumonia, diseases of the digestive system, and tuberculosis were the principal causes of death in 1938.

The provisional 1938 death rate was 10.6 as compared to 11.2 for 1937, and to 10.7 for 1933, the lowest general mortality rate recorded prior to 1938. The 1938 provisional infant mortality rate of 50.9 per 1,000 live births was the lowest on record since the birth registration area was established (1915), and no doubt the lowest in the history of the country, Dr. Parran disclosed.

MATERNAL MORTALITY DROPS

The decline in maternal mortality continued throughout 1938, making the ninth consecutive year in which a decrease has been recorded. The provisional rate for 1938 was 4.0 per 1,000 live births and was about 10 per cent less than for 1937 and 30 per cent less than the 1933 rate.

Typhoid and paratyphoid fever, scarlet fever, diphtheria, poliomyelitis, epidemic cerebrospinal meningitis, tuberculosis, malaria, pellagra, diseases of the digestive system, nephritis, and diseases of pregnancy and childbirth showed the lowest death rates on record.

The mortality rates from influenza, pneumonia, and accidental causes were the lowest in recent years. Accidents, however, continue to take a heavy toll of lives. Automobile accidents alone account for one-third of the total accidental mortality and cause practically three times as many deaths as do typhoid fever, measles, scarlet fever, whooping cough, and diphtheria combined.

TUBERCULOSIS RATE LOWER

For the first time since preliminary mortality figures have been available from an appreciable number of states, the death rate from tuberculosis was less than 50 per 100,000 population.

Cancer and heart disease were the only major causes of death for which higher rates were recorded in 1938. The trend in mortality from both these diseases has been consistently upward for several years—an increase due in part at least to the larger proportion of the population reaching the older age periods in which cancer and heart disease are more prevalent.

A total of 822,811 cases of measles was re-

ported—the largest number recorded for any year since reliable figures have been available. Fewer cases of poliomyelitis (1,705) were reported in 1938 than in any other year since these preliminary annual compilations have been made, but toward the close of the fiscal year the disease became mildly epidemic in a limited number of states. During the first half of 1939, the total number of cases reported was 40 per cent higher than that for the corresponding period of 1938.

SMALLPOX CASES INCREASE

The number of reported cases of smallpox in the United States in 1938 (14,939) was nearly twice the number representing the 1933-37 median. The incidence of smallpox has been increasing in this country since 1930, when slightly more than 5,000 cases were reported. This increase apparently continued into 1939, as 8,273 cases were reported for the first 26 weeks of that calendar year. Smallpox cases in the United States were exceeded by only one country in the civilized world—India.

Preliminary reports of the National Health Survey on chronic diseases indicate that these illnesses present a serious problem. The estimated prevalence of specified chronic diseases shows nearly 7,000,000 cases of rheumatism, more than 3,500,000 of heart disease, an estimated 3,700,000 of arteriosclerosis and high blood pressure; 3,450,000 of hay fever and asthma; 2,100,000 of hernia; 2,000,000 of hemorrhoids and 1,750,000 of varicose veins.

MORE HEALTH DEPARTMENTS

The number of counties under the administration of a medical health officer employed full-time reached a new high of 1,371. In response to the demand for trained personnel, approximately 1,500 individuals received public health training during the year.

During this, the first full year of operation of the Venereal Disease Control Act, outstanding progress was made. Federal funds allocated to the states in the amount of \$2,400,000 supplementing funds amounting to \$4,300,000 derived from state and local sources, have enabled the states to increase appreciably the provisions of minimal services for the control of venereal diseases. For the fiscal year 1940, the sum of \$4,379,250, or 86.9 per cent of the total amount available, has been allotted to the states.

CANCER RESEARCH PROMOTED

During the second year of operation of the National Cancer Institute, grants-in-aid totaling \$85,962.50 were recommended by the National

Advisory Cancer Council for research projects and have been awarded to 13 institutions. Sixteen research fellows were on duty during the year and 29 physicians were appointed as trainees in the diagnosis and treatment of cancer. Nine and a half grams of radium were purchased and standardized. The entire amount has been loaned to hospitals and other institutions for the treatment of cancer patients.

The Public Health Service Hospital for narcotic patients at Forth Worth, Texas, was dedicated on October 28, 1938. The hospital at Lexington, Kentucky, operated at full capacity during the year with an average daily population of 960.

Dr. Parran believes that mental and nervous diseases and epilepsy together represent the largest unsolved problem in medicine. Hospitals caring for mental disease have on their books more than 500,000 patients, and more than 117,000 additional patients are cared for in hospitals for mental defectives and epileptics. The report recommended the establishment of an institute for the study of mental and nervous diseases.

Post-Collegiate Medical Assembly at O. S. U. to be March 29-30

The Seventh Post-Collegiate Assembly, presented annually for Ohio physicians by the Ohio State University College of Medicine, will be held at Columbus, Friday and Saturday, March 29 and 30. The Friday session will be devoted to symposia and round-table discussions. Guest speakers will furnish the program Saturday morning. At noon, an Alumni reunion luncheon celebrating the 106th anniversary of continuous medical teaching at Columbus will be held in honor of Dr. Howard L. Bevis, the new President of the University. The complete program will appear in the March issue of *The Journal*.

State Revenue Triples in 10 Years

Some idea of the tremendous growth and expansion of the state government during the last decade can be gained from the following comparative figures recently issued by Don H. Ebright, Treasurer of State. Total receipts of all funds of the State Treasury amounted to \$115,550,000 in 1929 and \$394,581,000 in 1939. The Treasurer held as custodian bonds totaling \$164,640,606 in 1929, \$233,744,000 in 1939. The number of checks paid by the Treasurer in 1929 was 741,000, compared with 5,376,871 in 1939. Much of the increase in this last figure was due to the payment of pensions to 125,000 persons 12 times a year, and 2,500,000 Unemployment Compensation payments.

Dr. Cummer Elected President of Cleveland Medical Library Association

At the annual meeting of the Cleveland Medical Library Association held on January 19, 1940, Dr. Clyde L. Cummer was elected president. Dr. Cummer has been active in the Association for many years, having served as treasurer, secretary of the committee for building the Allen Memorial



DR. CUMMER

Library, and chairman of the board of Trustees. He is at present assistant professor of dermatology and syphilology in the Medical School of Western Reserve University, chairman of the Ohio Public Health Council and chairman of the Committee on Education of the Ohio State Medical Association. He is a former president of the Academy of Medicine of Cleveland and of the Ohio

State Medical Association.

Dr. Carl H. Lenhart, who retired as president, became a trustee emeritus. New trustees included Drs. Alexander T. Bunts, J. M. Hayman, Louis W. Karnosh and Robert M. Stecher. Drs. H. V. Paryzek, H. D. Piercy, R. W. Scott and C. W. Wyckoff were re-elected as trustees.

The following officers also were re-elected: Dr. Frank S. Gibson, Chairman of the Board; Dr. Harry D. Piercy, Secretary; Dr. Thomas P. Shupe, Treasurer; while the following were designated to supervise departments of the library's activities: Dr. H. N. Cole, finance; Dr. E. H. Cushing, library; Dr. Robert S. Dinsmore, maintenance; Dr. Harry V. Paryzek, membership; Dr. Harold Feil, program; Dr. Howard Dittrick, museum; Dr. Robert M. Stecher, publications.

Annual reports of officers showed that there are 55,718 volumes on the library's shelves. During the year, 12,206 visitors were registered. Dr. James B. Herrick, Professor of Internal Medicine at Rush University, Chicago, spoke on "Jean-Baptiste Bouillaud and His Contributions to Heart Disease."

Columbus Physicians Honored

At the recent annual meeting of the Columbus Academy of Medicine tribute was paid to the following members who have been practicing medicine for 50 years or longer: Dr. James A. McClure, Dr. F. F. Lawrence, Dr. Frank L. Stillman, Dr. Joseph E. Beery, Dr. Frank Warner, Dr. E. J. Emerick, Dr. John E. Brown, Dr. M. T. Dixon, Dr. Earl M. Gilliam, Dr. Dana M. Collison, Dr. Wm. H. Cleveland, Dr. Charles P. Junkerman, Dr. Jacob A. Stout and Dr. L. H. Mann.

In Memoriam

Maude Waterhouse Abbott, M.D., Canton; Eclectic Medical College, Cincinnati, 1886; aged 80; died January 2. Dr. Abbott formerly practiced in Tiffin, where she was also active in civic affairs. Surviving are two daughters, two sisters and a brother.

John B. Ballinger, M.D., Versailles; Medical College of Ohio, Cincinnati, 1877; aged 85; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 18. Dr. Ballinger retired a few years ago after practicing in the Versailles community for 50 years. He was a charter member of the Darke County Medical Society. Dr. Ballinger had served on the local Board of Education and the Darke County Board of Visitors, and was a regular attendant at the Oakland Church of the Brethren. Two daughters, three sons, a sister and a brother survive.

Todd Caris, M.D., Mt. Gilead; Starling Medical College, Columbus, 1895; aged 69; member of the Ohio State Medical Association and the American Medical Association; died December 28. A native of Crawford County, Dr. Caris practiced in Bloominggrove, Johnsville and other Morrow and Crawford County communities prior to the World War, in which he served as a lieutenant in the Medical Corps of the U. S. Army. Following the war he located in Mt. Gilead, where he practiced until his retirement last Spring because of ill health. Ever active in behalf of his profession, Dr. Caris had been secretary of the Morrow County Medical Society since 1921, and represented the society in the House of Delegates of the State Association in 1927 and 1933. He was coroner of Morrow County for 18 years. Dr. Caris was a past master of the local Masonic Lodge. Surviving are two daughters, four sons and a sister.

William Utteridge Cole, M.D., Columbus; Starling Medical College, Columbus, 1890; aged 78; died January 19. Dr. Cole was one of the founders of the old Ohio Medical College. He practiced in Columbus for nearly 50 years. Two sisters and two brothers survive.

Elihu Culbertson, M.D., Savannah; University of Wooster, Medical Department, Cleveland, 1880; aged 84; died December 21. Dr. Culbertson practiced in Savannah, Ashland County and vicinity for 55 years. He was a member of the I.O.O.F. and the Masonic Order. Two sons survive.

Charles Wesley Davis, M.D., Madisonville; Medical College of Ohio, Cincinnati, 1887; aged 78; died December 20. Dr. Davis first practiced

in Amelia and then in Madisonville, where he operated a drug store for 38 years until his retirement 10 years ago. His widow and a son survive.

William Ray Deemer, M.D., Fremont; Toledo Medical College, 1893; aged 67; former member of the Ohio State Medical Association and the American Medical Association; died December 16, in Miami, Fla. Except for service in the Medical Corps of the U. S. Army during the World War, Dr. Deemer had practiced in Fremont all his professional life. He retired a year and a half ago because of ill health. Surviving are his widow and two daughters.

Herman M. Doty, M.D., Chagrin Falls; Western Reserve University School of Medicine, 1873; aged 92; died December 29. Dr. Doty practiced in Chagrin Falls for many years. He was mayor of the village in 1892-1893, and for over 70 years was a member of the local Masonic Lodge.

Lee Humphrey, M.D., Malta; Medical College of Ohio, Cincinnati, 1888; aged 76; member of the Ohio State Medical Association and the American Medical Association; died December 30. Dr. Humphrey practiced in Malta for 52 years. Active in the Morgan County Medical Society, he had served that society as president, vice-president, legislative committeeman and delegate to the State Association. In 1920-22 he was a member of the Auxiliary Committee on Public Policy and Legislation of the State Association. Dr. Humphrey was a member of the State Medical Board for 29 years, having been appointed by Governor Judson Harmon in 1910 and re-appointed by succeeding governors, most recently by Governor John W. Bricker in 1938. He had served as president and treasurer of the board. Dr. Humphrey was president of the Malta National Bank and the Malta Manufacturing Company, and actively interested in other civic and business affairs of his community. He was a member of the local board of education for many years, and had also served on the Morgan County Democratic Committee. Dr. Humphrey was a Mason and a Rotarian. He had been a member of the official board of the Methodist Church for more than 40 years. A daughter and a sister survive.

James D. Jordan, M.D., Portsmouth; University of Louisville School of Medicine, 1894; aged 70; member of the Ohio State Medical Association and the American Medical Association; died January 2, following an automobile accident at Dalton, Ga., in which his wife also lost her life. Dr. Jordan had practiced at Sand Hill, Ky., Man-

chester, and since 1904, in Portsmouth. A son survives.

Oren Mechling Kramer, M.D., Millersport; Starling Medical College, 1897; aged 67; member of the Ohio State Medical Association and the American Medical Association; died December 18. Dr. Kramer first practiced in Newark and Hebron. From 1913 to 1923 he was physician at the Ohio Penitentiary. He had practiced in Millersport for the past 16 years. A life-long Democrat, Dr. Kramer represented Fairfield County on the Democratic Central Committee. He was a past-president of the Fairfield County Medical Society and for eight years was county health commissioner. Dr. Kramer was a member of the Masonic Order, the I.O.O.F., and the Methodist Church. His widow, a daughter and a son survive.

John W. Little, M.D., Westerville; Starling Medical College, Columbus, 1881; aged 81; died December 29. Dr. Little had lived in Westerville since 1919, when he retired after 40 years' practice in Cynthiana. His widow, a daughter, three sons and two sisters survive.

Harry Powell Martin, M.D., Newark; Eclectic Medical College, Cincinnati, 1902; aged 66; died December 9. After a few years in Chillicothe, Dr. Martin located in Newark, where he practiced for more than 25 years. His widow, a daughter, a son, three brothers and a sister survive.

Samuel D. McClure, M.D., Newark; Cleveland Medical College, Homeopathic, 1891; aged 86; died December 7. A native of Canada, Dr. McClure practiced in Newark for 48 years. He was a member of the Presbyterian Church. Surviving are two daughters, a son and two brothers.

David Mering Milholland, M.D., Defiance; Miami Medical College, Cincinnati, 1884; aged 82; member of the Ohio State Medical Association and the American Medical Association; died December 26. Dr. Milholland practiced at Junction, Paulding County, for over 50 years. He retired three years ago because of ill health.

Charles R. Sheckler, M.D., Brokensword; Columbus Medical College, 1878; aged 84; former member of the Ohio State Medical Association and the American Medical Association; died January 7. Dr. Sheckler was one of the oldest practicing physicians in the state. After a short time in North Robinson, he located in Brokensword, serving that Crawford County community for nearly 62 years. He was a member of the Methodist Church and the Independent Order of Foresters. Two sons, two brothers and a sister survive.

William Henry Steele, M.D., Montpelier; University of Michigan Medical School, Ann Arbor, 1903; aged 67; died December 22. Dr. Steele had

practiced in Montpelier since 1912. Previously he was located at Manistee, Mich., for nine years. During the World War he was stationed at Camp Sherman, Chillicothe, where he was a lieutenant in the Medical Corps of the U. S. Army. Dr. Steele had been a member of the local board of education, and was a member of the Masonic Order and the American Legion. His widow, a son, Dr. William W. Steele, Royal Oak, Mich., and a brother survive.

Clark Wesley Thomas, M.D., Findlay; Toledo Medical College, 1897; aged 76; died December 25. Active in community affairs, Dr. Thomas was engaged in the jewelry and job printing business in Findlay for many years. He was a Mason. His widow, two sons, a sister and two brothers survive.

Harry Thorne, M.D., Dayton; Medical College of Ohio, Cincinnati, 1895; aged 67; died December 18. Dr. Thorne practiced on Dayton's West Side for 45 years. He had been in ill health for several years. Dr. Thorne was a member of the Methodist Church. His widow and a daughter survive.

Raiman Rush Warren, M.D., Marietta; Baltimore Medical College, 1875; aged 87; died November 29. Dr. Warren retired 10 years ago after having practiced in eastern Washington County for many years. He was a member of the Masonic Order. Surviving are his widow, two daughters and two sons—Dr. J. R. Warren, Marietta, and Dr. J. M. Warren, Sebring, and two brothers.

Pathologists Meet in Cleveland

A meeting of the Ohio Society of Pathologists was held at the Institute of Pathology, Western Reserve University School of Medicine, Saturday afternoon, January 27. Following a business meeting and an address of welcome by Dr. Howard T. Karsner, professor of pathology at Western Reserve, an interesting scientific program was presented. It included an address by Dr. Karsner on "Ovarian Tumors Associated with Endocrine Dysfunction", a review of the slide library and a tour of the Institute of Pathology. Officers of the society are Dr. Harry L. Reinhart, Columbus, president, and Dr. A. H. Schade, Toledo, secretary.

Pediatrics Meeting at Washington

District of Columbia members of the American Academy of Pediatrics will be hosts for the annual meeting of Region 1 of the Academy, April 4-6, at the Mayflower Hotel, Washington, D. C. Details of the meeting can be obtained by addressing Dr. Wm. F. O'Donnell, chairman of the publicity committee, 2701—28th St., N.W., Washington, D. C.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

The present officers of the Butler County Medical Society were re-elected at a meeting of the society, Thursday evening, December 28, at the Colonial Tea Room, Oxford. They are: Dr. Harry M. Lowell, Hamilton, president; Dr. Merle Flenner, Hamilton, vice-president; Dr. Vera Coombs Iber, Hamilton, secretary; Dr. Earl C. Leyrer, Hamilton, treasurer; legislative committee—Dr. Flenner, chairman; Dr. E. O. Bauer, Middletown, and Dr. Harry M. Lowell, Hamilton; public relations committee—Dr. Daniel M. Skinner, Hamilton, chairman; Dr. Mark Millikin, Hamilton, and Dr. Walter Reese, Middletown; medical economics committee—Dr. T. A. Munns, Oxford, chairman; Dr. Ross A. Hill, Middletown, and Dr. William F. Vinnege, Hamilton; Dr. Chas. T. Atkinson, Middletown, and Dr. W. A. Davin, Hamilton, delegates; Dr. Walter Roehl and Dr. E. O. Bauer, Middletown, alternates.

Recommendations of a committee appointed to investigate the care and treatment of tuberculosis in Butler County were accepted by the society.—Vera Coombs Iber, M.D., secretary.

CLINTON

At a meeting on Tuesday, December 5, at Wilmington the Clinton County Medical Society elected the following officers for 1940: Dr. L. H. Fullerton, New Vienna, president; Dr. W. L. Wead, Sabina, vice-president; Dr. R. H. Vance, Wilmington, secretary-treasurer; Dr. Kelley Hale and Dr. F. A. Peelle, Wilmington, legislative committee; Dr. Elizabeth Shrieves and Dr. W. L. Regan, Wilmington, public relations committee; Dr. V. E. Hutchens and Dr. E. D. Peelle, Wilmington, medical economics committee; Dr. Robert Conard, Wilmington, delegate; Dr. Glenn K. Dennis, Wilmington, alternate.

Tuesday evening, January 16, the society gave a testimonial dinner at the General Denver Hotel, Wilmington, in honor of Dr. W. K. Ruble and Dr. A. C. Roberts who have been practicing medicine for 50 years.—R. H. Vance, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during January:

January 9—"Cartilaginous and Ligamentous Injuries to the Knee Joint", by Dr. Theodore H. Vinke; "Observations on the Care and Outcome of Diabetes in Cincinnati During 1937", by Dr. Samuel Rockwern, with discussion by Dr. M. A. Blankenhorn and Dr. Carl A. Wilzbach.

January 16—"The Use of Liver and Iron in

the Treatment of Anemia", by Dr. Russell L. Haden, Cleveland.

January 23—"The Underlying Principles of Radiation Therapy and Their Practical Application in Treating Cancer", by Dr. Francis Carter Wood, director, Institute of Cancer Research, Columbia University, New York City. This meeting was held under the auspices of the Cancer Control Council of the Cincinnati Public Health Federation.

January 30—Hospital Night. Clinical pathological conference in the pathological amphitheater of the Cincinnati General Hospital. The following cases were reviewed, with demonstration of material by means of episcopes and microprojector: 1, gastric ulcer, with massive hemorrhage and perforation, treated surgically; 2, primary hepatoma; 3, coronary occlusion.—Bulletin.

HIGHLAND

Officers of the Highland County Medical Society for 1940 are: Dr. J. C. Larkin, Hillsboro, president; Dr. J. D. McBride, Hillsboro, vice-president; Dr. W. B. Roads, Hillsboro, secretary-treasurer; Dr. Larkin, legislative committeeman; Dr. H. W. Chaney, Sugartree Ridge, delegate; Dr. J. H. Frame, Highland, alternate.—W. B. Roads, M.D., secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CHAMPAIGN

The following Urbana physicians have been elected officers of the Champaign County Medical Society: Dr. N. M. Rhodes, president; Dr. A. F. Hawk, vice-president; Dr. F. R. Grogan, secretary-treasurer; Dr. D. C. Houser, legislative, public relations, and medical economics committeeman, and delegate; Dr. L. A. Woodburn, alternate.—F. R. Grogan, M.D., secretary.

CLARK

Officers of the Clark County Medical Society for 1940 are: Dr. Carl H. Reuter, Springfield, president; Dr. E. H. Long, South Vienna, vice-president; Dr. G. M. Lane, Springfield, secretary; Dr. F. P. Anzinger, Springfield, treasurer; Dr. C. E. M. Finney, Springfield, alternate.—G. M. Lane, M.D., secretary.

DARKE

Darke County Medical Society has elected the following officers for 1940: Dr. M. M. Kane, Greenville, president; Dr. D. G. Carlson, Ansonia, vice-president; Dr. W. D. Bishop, Greenville, secretary-treasurer; Dr. J. E. Gillette, Versailles, legislative committeeman; Dr. C. I. Stephen,

Ansonia, delegate; Dr. P. G. Lenhert, Arcanum, alternate.—W. D. Bishop, M.D., secretary.

GREENE

Dr. Armine T. Wilson, a member of the staff of the University of Cincinnati College of Medicine, spoke on "Sulfapyridine in the Treatment of Pneumonia", at a meeting of the Greene County Medical Society, Thursday morning, January 4, at the Court House, Xenia.—D. F. Kyle, M.D., secretary.

MIAMI-SHELBY

The semi-annual joint meeting of the Miami and Shelby County Medical Societies was held at the Favorite Hotel, Piqua, Thursday, January 4. Following a social period and noon dinner, Dr. Leon Schiff of the Department of Medicine, University of Cincinnati College of Medicine, gave a lecture on "Gastroscoy".—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. James M. Ruegsegger of the Department of Medicine, University of Cincinnati College of Medicine, spoke on "Recent Developments in the Treatment of Pneumonia", at a meeting of the Montgomery County Medical Society, Friday evening, January 5, in the auditorium of the Fidelity Medical Building, Dayton.

At a meeting on Friday evening, January 19, at the Nurses' Home of the Miami Valley Hospital, the society honored Dr. Dudley Keever, Centerville, who is completing his fifty-fifth year in the practice of medicine. The scientific program, presented under the auspices of the Dayton chapter of the American College of Surgeons, consisted of an address by Dr. J. R. Buckbinder of the Department of Surgery, Northwestern University, Chicago, Ill., on "The Recognition and Treatment of Acute Suppurative Peritonitis".—Mildred E. Jeffrey, executive secretary.

SHELBY

Officers of the Shelby County Medical Society for 1940 are: Dr. E. P. Sparks, Sidney, president; Dr. F. S. Downey, Sidney, vice-president; Dr. R. W. Alvis, Sidney, secretary-treasurer; Dr. L. C. Pepper, Sidney, legislative committeeman; Dr. V. W. LeMaster, Sidney, public relations committeeman; Dr. O. L. Bratton, Sidney, medical economics committeeman; Dr. R. E. Paul, Botkins, delegate; Dr. L. F. Zacharias, Jackson Center, alternate.—R. W. Alvis, M.D., secretary.

PREBLE

Dr. F. E. Hagie, Richmond, Indiana, was the speaker at a meeting of the Preble County Medical Society, Wednesday morning, December 27, at the Court House, Eaton.—News clipping.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

AUGLAIZE

At a meeting of the Auglaize County Medical Society Thursday evening, December 14, at St. Marys, the society elected the following officers for 1940: Dr. E. F. Heffner, Wapakoneta, president; Dr. H. J. Gudenkauf, Minster, vice-president; Dr. C. C. Berlin, Wapakoneta, secretary-treasurer; legislative committee—Dr. Guy E. Noble, St. Marys, chairman; Dr. R. C. Hunter, Wapakoneta, and Dr. C. W. Ekermeier, Minster; public relations committee—Dr. T. E. Campbell, Wapakoneta, chairman; Dr. E. A. Gomolski, Minster; Dr. George B. Faulder, Wapakoneta; Dr. Noble and Dr. Berlin; Dr. Noble, delegate, and Dr. Faulder, alternate. Drs. Heffner and Gudenkauf were elected president and vice-president, respectively, for the eighth consecutive year, and Dr. Berlin, secretary-treasurer for the tenth consecutive year.

The society elected to membership Dr. Forest C. Hunter and Dr. Fred P. Berlin, who have recently started practice in Wapakoneta, the former being associated with his father, Dr. Roy C. Hunter, and the latter with his father, Dr. Chas. C. Berlin.—C. C. Berlin, M.D., secretary.

HANCOCK

Robert H. Fletcher, local attorney and former athletic coach, spoke on "Broken Field Running"—a discussion of politics in football language, at a meeting of the Hancock County Medical Society, Thursday evening, December 21, at the Elks' Home, Findlay.—News clipping.

The society elected the following officers for 1940: Dr. Ralph E. Rasor, Bloomdale, president; Dr. Henry Koehler, Findlay, vice-president; Dr. L. H. Goodman, Findlay, secretary; Dr. E. J. Thomas, Findlay, treasurer; Dr. E. E. Rakestraw, Findlay, legislative committeeman; Dr. O. P. Klotz, Findlay, public relations committeeman; Dr. J. H. Marshall, Findlay, medical economics committeeman; Dr. Frank M. Wiseley, Findlay, delegate; Dr. Marshall, alternate.—L. H. Goodman, M.D., secretary.

HARDIN

Officers of the Hardin County Medical Society for 1940 are: Dr. Don R. Printz, Ada, president; Dr. F. M. Elliott, Ada, vice-president; Dr. H. A. Kerns, Kenton, secretary-treasurer; Dr. Elliott, legislative committeeman; Dr. R. G. Schutte, Kenton, delegate; Dr. Printz, alternate.—John A. Mooney, M.D., retiring secretary.

LOGAN

An interesting lecture was given by Dr. M. L. Burrell, urologist of Springfield, at the first meeting of the Logan County Medical Society,

under the new president, Dr. C. L. Barrett, Friday, January 5, at the Hotel Lyon, Bellefontaine.—F. W. Kaylor, M.D., secretary.

MERCER

Mercer County Medical Society has elected the following officers for 1940: Dr. Charles P. Adkins, Coldwater, president; Dr. M. L. Downing, Rockford, vice-president; Dr. Frank E. Ayers, Celina, secretary-treasurer; Dr. J. T. Gibbons, Celina, legislative committeeman; Dr. E. J. Willke, Maria Stein, public relations committeeman; Dr. G. I. Scheetz, Rockford, medical economics committeeman; Dr. C. C. Henrie, Celina, delegate; Dr. R. B. Benning, Fort Recovery, alternate.

SENECA

Dr. Wade W. Stone, Toledo, discussed "Surgical Office Procedures" at a meeting of the Seneca County Medical Society, Tuesday evening, January 11, at the Shawhan Hotel, Tiffin.—M. H. Aiken, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

Officers of the Academy of Medicine of Toledo and Lucas County for 1940 are: Dr. Clarence E. Hufford, president; Dr. E. W. Huffer, president-elect; Dr. W. W. Green, secretary; Dr. W. W. Alderdyce, treasurer; legislative committee—Dr. A. A. Brindley, Dr. B. J. Hein and Dr. E. J. McCormick; public relations committee—Dr. K. C. McCarthy, chairman, Dr. R. J. Borer, Dr. A. P. Hancuff, Dr. B. V. Scheib, Dr. D. S. Booth, Dr. Maurice A. Schnitker, Dr. H. D. Brown; medical economics committee—Dr. Fred M. Douglass, director; medical service committee—Dr. E. N. Nagel, chairman of low-income group, and Dr. L. D. Miller, chairman of indigent group; advisory committee to city manager—Dr. Brindley, Dr. McCormick and Dr. M. R. Lorenzen; advisory committee to credit association—Dr. R. C. Young, chairman; Dr. E. B. Gillette, Dr. T. H. Brown, Dr. Galbraith and Dr. Brindley, delegates; Dr. R. C. Young, Dr. F. N. Nagel, Dr. Karl D. Figley and Dr. L. D. Miller, alternates.—George W. Cooley, executive secretary.

The Academy presented the following programs during December and January:

December 1—General Meeting. "Recent Development in and Knowledge of Vitamins of Special Significance to the General Practitioner", by Howard B. Lewis, Ph.D., professor of biological chemistry, University of Michigan.

December 8—Section of Pathology, Experimental Medicine and Bacteriology. "Thrombo Cytopenia with a View of Fifteen Cases. Recent Advances in Selection for Splenectomy by Bone

Marrow Studies", by Dr. Foster Myers, with discussion by Dr. Wm. A. Neill, Dr. Fred M. Douglass and Dr. T. L. Ramsey.

December 15—Medical Section. "The Sero and Chemotherapy of Pneumonia", by Dr. M. A. Blankenhorn, professor of medicine, University of Cincinnati College of Medicine.

December 22—Surgical Section. "Treatment of Fracture of Lower End of Tibia and Fibula Involving the Ankle Joint", by Dr. B. V. Scheib.

January 5—Annual Meeting. Reports and election of officers.

January 12—Section of Pathology, Experimental Medicine and Bacteriology. "Diagnosis of Sterility in the Male", by Dr. Borris J. Heckel, Chicago.

January 19—Medical Section. Review of Recent Literature Regarding Advances—"Blood Dyscrasie", by Dr. L. C. Grosh, Jr.; "Gastroenterology", by Dr. R. J. Borer. "Resumé of Pneumonia Treatment for 1938 (125 cases)", by Dr. W. T. Preston.

January 26—Surgical Section. "Pancreatic Necrosis", by Dr. L. F. Smead.—Bulletin.

PAULDING

Officers of the Paulding County Medical Society for 1940 are: Dr. L. R. Fast, Paulding, president; Dr. R. J. Dillery, Paulding, vice-president; Dr. G. L. Doster, Paulding, secretary-treasurer; Dr. K. C. Evans, Payne, legislative committeeman; Dr. A. R. Burson, Oakwood, public relations committeeman; Dr. Evans, delegate; Dr. F. E. Spragens, Antwerp, alternate.—G. L. Doster, M.D., secretary.

PUTNAM

Dr. E. C. Yingling, Lima, spoke on "Diseases and Injuries of the Eye in General Practice", at a meeting of the Putnam County Medical Society, Tuesday, January 2, at the Hotel Putnam, Ottawa.—H. N. Trumbull, M.D., correspondent for *The Journal*.

SANDUSKY

Sandusky County Medical Society has elected the following officers for 1940: Dr. T. R. Cunningham, Fremont, president; Dr. E. B. Banister, Fremont, vice-president; Dr. J. W. Agnew, Gibsonburg, secretary-treasurer; Dr. C. I. Kuntz, Fremont, legislative committeeman; Dr. C. J. Wolf, Fremont, public relations committeeman; Dr. E. W. Baker, Fremont, medical economics committeeman; Dr. Wolf, delegate; Dr. J. L. Curtin, Fremont, alternate.—E. C. Swint, M.D., retiring secretary.

WILLIAMS

Officers of the Williams County Medical Society for 1940 are: Dr. R. K. Ameter, Bryan, president; Dr. M. R. Kittredge, Bryan, vice-president; Dr.

W. E. McKee, Bryan, secretary-treasurer; Dr. H. J. Luxan, Montpelier, legislative committeeman; Dr. H. W. Wertz, Montpelier, delegate; Dr. E. R. Jacka, Bryan, alternate.—W. E. McKee, M.D., secretary.

WOOD

At a meeting of the Wood County Medical Society, Thursday, December 14, at Bowling Green, the following officers were elected for the ensuing year: Dr. F. V. Boyle, Bowling Green, president; Dr. T. W. Watson, Wayne, vice-president; Dr. R. N. Whitehead, Bowling Green, secretary-treasurer; Dr. D. R. Barr, legislative committeeman; Dr. H. W. Dierksheide, Pemberville, public relations committeeman; Dr. J. R. McAuley, Perrysburg, medical economics; Dr. P. F. Orr, Perrysburg, delegate; Dr. J. R. Janney, North Baltimore, alternate.

Dr. Raymond Quade, Toledo, spoke on "Backache—The Significance of the Intervertebral Disc", at a meeting of the society, Thursday evening, January 18, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. Fred Rittinger, Cleveland, spoke on "Sulfanilamide and Sulfapyridine and Treatment of Infections in Children", at a meeting of the Ashtabula County Medical Society, Tuesday night, December 12, at Hotel Ashtabula, Ashtabula.—News clipping.

The society re-elected the following officers for 1940: Dr. Perry R. Longaker, Conneaut, president; Dr. Harry K. Lynne, Jefferson, vice-president; Dr. C. T. Risley, Conneaut, secretary-treasurer; Dr. O. A. Dickson, Jefferson; Dr. N. C. Kiefer, Geneva, and Dr. R. B. Wynkoop, Ashtabula, censors; Dr. Wynkoop, delegate; Dr. J. F. Docherty, Conneaut, alternate.—C. T. Risley, M.D., secretary.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during January:

January 5—Clinical and Pathological Section. "Aneurysm of Heart", by Dr. Richard Dexter; "Case of Tularemia", by Dr. Walter Taylor; "Rupture of Gall Bladder", by Dr. E. F. Kieger; "Multiple Aortic Aneurysm", Dr. Harry V. Paryzek; "A Case of Hemolytic Jaundice, Splenectomy", by Dr. F. A. Spittler, with demonstration of pathological specimens by Dr. John Work.

January 12—Joint Meeting of the Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Concerning the Existence of Four Normal

Heart Sounds", by Dr. C. J. Wiggers, Dr. N. H. Bohyer and Dr. R. W. Echstein; "Pressure Curves of the Frog and Turtle Heart", by Dr. Wiggers and E. W. Shannon, A.B.; "The Onset of Ventricular Fibrillation", Dr. R. Wegria and Dr. Wiggers; "Observations on the Influence of Hormonal Therapy on the Phosphatization of Rachitic Bones", by Dr. H. J. Gerstenberger, E. Chapman, M.A., C. Rose, M.S., and F. Beal.

January 26—Special Joint Meeting of the Academy and the Pediatric Section. "Clinical Significance of Asphyxia", by Dr. Frederick Schreiber, professor of neurosurgery, Wayne University Medical School, Detroit; "Etiological Factors in Neonatal Asphyxia", by Dr. W. C. C. Cole, professor of pediatrics, Wayne University Medical School.—Bulletin.

LAKE

The following physicians were elected officers of the Lake County Medical Society at a meeting, Tuesday, December 12, at the Lake County Memorial Hospital, Painesville: Dr. C. B. Elliott, Painesville, president; Dr. Howard Stephens, Mentor, vice-president; Dr. J. G. Powell, Painesville, secretary-treasurer; Dr. Mel Davis, Painesville, censor (3-year term); Dr. V. N. Marsh, Painesville, delegate. The meeting was followed by the customary dinner at the hospital.—J. G. Powell, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Officers of the Columbiana County Medical Society for 1940 are: Dr. C. W. DeWalt, Columbiana, president; Dr. L. C. Ziegler, Salem, vice-president; Dr. Paul Conrad, Leetonia, secretary-treasurer.—Paul Conrad, M.D., secretary.

Dr. E. W. Miskall, East Liverpool, spoke on "Ureteral Stricture" at a meeting of the society, Tuesday evening, December 12, at the American Legion Hall, Lisbon. At the society's meeting on January 9, Dr. Lea A. Cobbs, Salem, discussed "Some Aspects of X-Ray Therapy".—News clipping.

MAHONING

Kingdon U. Brown was the principal speaker at the annual banquet of the Mahoning County Medical Society, Tuesday evening, January 16, at the Youngstown Club. His subject was "The Fine Art of Deception".—Bulletin.

Dr. R. B. Poling, president of the society, has appointed the following committee chairmen: Dr. Claude B. Norris, editor of *The Bulletin*; Dr. Wm. H. Evans, programs; Dr. Walker K. Stewart, public relations and economics; Dr. Geo. M. McKelvey, sub-committee on economics; Dr. John N. McCann sub-committee on public relations;

Dr. Joseph C. Hall, sub-committee on indigent relief; Dr. Ivan C. Smith, sub-committee on voluntary health insurance; Dr. Saul J. Tamarkin, state correspondent; Dr. P. R. McConnell, membership and attendance; Dr. J. L. Fisher, social; Dr. Joseph J. Wasilko, lay education; Dr. John A. Renner, housing and library; Dr. D. H. Smeltzer, medico-legal; Dr. Adolph Marinelli and Dr. W. J. Tims, co-chairmen, postgraduate day; Dr. O. J. Walker, legislative; Dr. Gordon Nelson, public health; Dr. Dean Nesbit, publicity; Dr. John Heberding, member of executive committee, Women's Field Army Against Cancer.—C. A. Gustafson, M.D., retiring correspondent for *The Journal*.

PORTAGE

Dr. Charles L. Hartsook Cleveland, gave a very interesting talk on the subject, "Headache", at a meeting of the Portage County Medical Society, Thursday evening, January 4, at the home of Dr. Harris S. Wendorf, Ravenna.—E. J. Widdecombe, M.D., secretary.

STARK

A meeting of the Stark County Medical Society, Thursday evening, January 11, at the Elks' Club, Canton, was devoted to a discussion of a minimum fee schedule and a program for poor relief. Principal speakers were: Dr. E. Gillespie, Canton, chairman of the medical economics committee; Dr. F. S. Van Dyke, Canton, member of the State Association's Committee on Poor Relief; and Dr. R. L. Rutledge, Alliance, Councilor for the Sixth District.

Officers of the society for 1940 are: Dr. J. E. Purdy, Canton, president; Dr. J. Sharp Wilson, Canton, president-elect; Dr. Clair B. King, Canton, secretary-treasurer; legislative committee—Dr. John M. Van Dyke, Canton; Dr. Geo. L. King, Jr., Alliance, and Dr. Geo. N. Wenger, Massillon; public relations committee—Dr. Ralph K. Ramsayer, Canton; Dr. W. M. Dowlin, Canton; Dr. J. A. McNally, Canton; Dr. H. P. Hart, Massillon, and Dr. A. Alvin Fisher, Canton; delegates—Dr. John M. Van Dyke, Canton; Dr. A. R. Basinger, North Canton, and Dr. Wenger; alternates—Dr. H. W. Beck, Canton; Dr. Verl Z. Garster, Waynesburg, and Dr. R. C. Manchester, Alliance.—Clair B. King, M.D., secretary.

SUMMIT

"The Progress of 1939" was the subject of a symposium presented at a meeting of the Summit County Medical Society, Tuesday evening, January 2, at the Mayflower Hotel, Akron. Speakers representing their respective specialties were: Dr. C. R. Anderson, eye, ear, nose and throat; Dr. G. R. Taylor, surgery; Dr. Ivor Campbell, neurology; Dr. H. H. Leuchtag, medicine; and Dr. F. T. Moore, roentgenology.—Bulletin.

Officers of the society for 1940 are: Dr. William

A. Parks, president; Dr. Leroy C. Eberhard, president-elect; Dr. A. S. McCormick, secretary-treasurer (26th term); legislative committee—Dr. J. G. Blower, chairman, and Dr. J. R. Shoemaker; public relations and economics committee—Dr. J. G. Kramer, chairman; Dr. E. A. Freeman, Dr. J. G. Lemmon, Dr. R. E. Pinkerton, Dr. C. E. Myers, Dr. A. P. Ormond and Dr. Ivor Campbell; delegates—Dr. R. T. Allison, Jr., Dr. H. H. Musser, Dr. Ormond and Dr. F. B. Roberts; alternates—Dr. A. E. Davis, Dr. T. L. Bliss, Dr. Myers and Dr. H. V. Sharp.—A. S. McCormick, M.D., secretary.

TRUMBULL

The following Warren physicians are officers of the Trumbull County Medical Society for 1940: Dr. P. J. Fusco, president; Dr. P. C. Gauchat, vice-president; Dr. A. H. Seiple, secretary-treasurer; Dr. R. D. Herlinger, legislative committeeman and delegate; Dr. J. D. Knox, alternate.—A. H. Seiple, M.D., secretary.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Officers of the Belmont County Medical Society for 1940 are: Dr. Harry G. Harris, Martins Ferry, president; Dr. W. Miles Garrison, St. Clairsville, president-elect; Dr. C. W. Kirkland, Bellaire, secretary-treasurer; Dr. R. H. Wilson, Martins Ferry, and Dr. D. M. Creamer, Bellaire, legislative committeemen; public relations committee—Dr. J. B. Martin, St. Clairsville, chairman, Dr. James J. Arbaugh, Martins Ferry, and Dr. R. H. McCommon, Shadyside; Dr. C. B. Messerly, Martins Ferry, medical economics committeeman; Dr. Harris, delegate; Dr. Garrison, alternate.—C. W. Kirkland, M.D., secretary.

COSHOCTON

Dr. Floyd Craig, Coshocton, spoke on "Treatment of Pneumonia" and Dr. T. F. McAllister, Coshocton, discussed "Paralysis", at a meeting of the Coshocton County Medical Society, Tuesday night, December 19, at Coshocton.—News clipping.

The society elected the following officers for 1940: Dr. T. F. McAllister, Coshocton, president; Dr. H. H. Schwindt, West Lafayette, vice-president; Dr. J. D. Lower, Coshocton, secretary-treasurer; Dr. J. G. Smailes and Dr. Floyd Craig, Coshocton, legislative committeemen; Dr. E. W. Wright, Coshocton, public relations committeeman; Dr. Smailes, delegate; Dr. Craig, alternate.—J. D. Lower, M.D., secretary.

TUSCARAWAS

Dr. Carl E. Evans, Newark, discussed "Surgical Consideration of the Abdominal Cavity", at a meeting of the Tuscarawas County Medical

Society, Thursday night, January 11, at Uhrichs-ville.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

FAIRFIELD

Six members of the Fairfield County Medical Society who have practiced medicine for from 42 to 52 years were guests of their younger colleagues at a testimonial dinner, Thursday night, January 4, at the Georgian, Lancaster. Dr. Frank H. Stukey, president of the society, presided. Dr. W. B. Taylor, Pickerington, spoke on "Highlights of the Practice of Medicine". A plaque was presented to each of the honor guests. Each plaque bore in gold scroll engraving a line reading "Given by the Fairfield County Medical Society in recognition of faithful service in the practice of medicine". The physicians thus honored, and their years of practice, were: Dr. George P. Huddle, Stoutsville, 52 years; Dr. A. V. Lerch, Pleasantville, 48 years; Dr. George O. Beery, Lancaster, 49 years; Dr. George W. Beery, Lancaster, 50 years; Dr. C. A. Barrow, Lancaster, 47 years, and Dr. Charles Alt, Baltimore, 42 years.—News clipping.

GUERNSEY

Fifty were present at the annual Christmas party of the Guernsey County Medical Society, for physicians and their wives, Thursday evening, December 21, at the Berwick Hotel, Cambridge. The speaker was Professor Ernest Work of Muskingum College, New Concord, who discussed "The European Situation".—News clipping.

Officers of the society for 1940 are: Dr. R. M. Swan, Cambridge, president; Dr. Frank Gordon Lawyer, Cambridge, vice-president; Dr. C. C. Headley, Cambridge, secretary-treasurer; Dr. M. S. Lawrence, Quaker City, legislative committeeman; Dr. F. W. Lane, Cambridge, public relations committeeman; Dr. W. L. Denny, Cambridge, medical economics committeeman; Dr. Lawrence, delegate; Dr. M. C. McCuskey, Seneca-ville, alternate.—C. C. Headley, M.D., secretary.

LICKING

The following Newark physicians are officers of the Licking County Medical Society for 1940: Dr. Louis A. Mitchell, president; Dr. Allen G. Crow, vice-president; Dr. John E. Hendricks, secretary-treasurer; Dr. George A. Gressle, delegate; Dr. George W. Sapp, alternate.—John E. Hendricks, M.D., secretary.

MORGAN

Attorney Clarence A. Graham, Zanesville, was the speaker at the annual joint meeting of the physicians and attorneys of Morgan County,

Thursday evening, December 14, at the Kennebec Hotel, McConnellsville.—News clipping.

Dr. Harry E. LeFever, Columbus, spoke on "Head Injuries" at a meeting of the society, Thursday evening, January 11, at the Kennebec Hotel, McConnellsville.—News clipping.

MUSKINGUM

Dr. Florian P. Cuthbert, Cumberland, spoke on "Hyperinsulinism" at a meeting of the Muskingum County Academy of Medicine, Wednesday evening, January 3, at the University Club, Zanesville. Dr. George F. Swan, Eighth District Councilor, discussed organization matters.—Beatrice T. Hagen, M.D., secretary.

PERRY

At a meeting of the Perry County Medical Society, Thursday, December 21, at New Lexington, the following officers were elected for the ensuing year: Dr. Fred E. Spangler, Somerset, president; Dr. O. D. Ball, New Lexington, vice-president; Dr. F. J. Crosbie, New Lexington, secretary-treasurer; Dr. C. B. McDougal, New Lexington, legislative committeeman; Dr. Spangler and Dr. Crosbie, public relations committee; Dr. H. F. Minshull, New Lexington, Dr. McDougal and Dr. Spangler, medical economics committee; Dr. James Miller, Corning, delegate; Dr. E. D. Allen, Crooksville, alternate.—F. J. Crosbie, M.D., secretary.

WASHINGTON

Officers of the Washington County Medical Society for 1940 are: Dr. R. W. Riggs, Marietta, president; Dr. C. R. Sloan, Marietta, vice-president; Dr. Deane H. Northrup, Marietta, secretary-treasurer; Dr. R. M. Meredith, Marietta, delegate; Dr. G. E. Huston, Lowell, alternate.—F. E. Eddy, M.D., acting secretary.

A dinner meeting of the society was held at the LaFayette Hotel, Marietta, Wednesday, January 10. Dr. James Wade, Parkersburg, W. Va., gave a very interesting discussion of myasthenia gravis, and presented a classical case. He also demonstrated the effects of prostigmine methyl-salicylate. Case reports were made by Dr. A. Howard Smith and Dr. Robert Tischurman.—Deane H. Northrup, M.D., secretary.

Ninth District

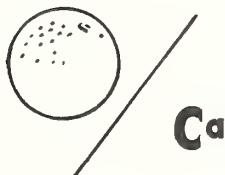
(COUNCILOR: I. P. SEILER, M.D., PIKETON)

HOCKING

Hocking County Medical Society has elected the following officers for 1940: Dr. C. T. Grattidge, Laurelville, president; Dr. Lethia Boocks, Logan, vice-president; Dr. M. H. Cherrington, Logan, secretary-treasurer; Dr. J. S. Cherrington, Logan, legislative committeeman; Dr. A. A.



Grapefruit and Calcium Assimilation



A recent research, conducted in one of America's great universities, has shown that the addition of citrus fruits to the diet causes increased assimilation and retention of calcium derived from other foods. As a result of this research, it was found that:

Animals given citrus juice in addition to a standard basal diet grew, on the average, about 10% more rapidly than their litter mates whose diets did not include citrus juice.

They stored a distinctly higher percentage of the calcium provided in the basal diet, the average being about 8%. In spite of the fact that the citrus juice slightly diluted the calcium of the diet—so that they received less calcium than their litter mate controls—they stored a greater amount, as well as a higher percentage, of the calcium in their diet.

This confirms by laboratory experiment the opinion, expressed by earlier investigators, that citrus juices have a supplementary effect in increasing

the utilization of other factors in the diet.

Physicians, dentists and dietitians who desire to increase the dietary intake of citrus fruits have found it useful to advise patients to take grapefruit *in addition* to their customary allowance of citrus fruit. Grapefruit may be drunk as fresh juice at any time of day, and eaten as entree, salad or dessert.

Grapefruit supplies an abundance of Vitamin C and appreciable amounts of other vitamins, as well as mineral salts, citrates and easily digested sugars.

The Citrus Commission of the State of Florida has prepared for the professions a treatise on the citrus fruits in their relation to health, with a full bibliography; a copy will be sent to any member of the medical profession upon request. Also available are reprints from the "Journal of Biological Chemistry" describing the laboratory experiment mentioned above.

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STATE OF FLORIDA



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Florida Citrus Commission
Lakeland, Florida

Gentlemen:

Please send me CITRUS FRUITS AND HEALTH and reprint of the article on calcium assimilation from THE JOURNAL OF BIOLOGICAL CHEMISTRY.

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The statements in this advertisement are based on the following numbered references in "Citrus Fruits and Health": 58, 59, 60.

Cole and Dr. M. H. Cherrington, Logan, public relations committeemen; Dr. Grattidge, delegate; Dr. A. K. Smith, Logan, alternate.—M. H. Cherrington, M.D., secretary.

SCIOTO

Arthur Breese, Chicago humorist, was the speaker at the annual banquet of the Hempstead Academy of Medicine, for physicians and their wives, Monday, December 11, at the Valley View Country Club, Portsmouth. His subject was, "Sidelights of the American Stage".—News clipping.

The academy elected the following officers for the ensuing year: Dr. Oscar R. Micklethwait, president; Dr. Ross M. Gault, vice-president; Dr. Sol Asch, secretary-treasurer; and Dr. Dow Allard, delegate; all from Portsmouth.

Dr. J. Henry Lazzari, secretary of the Tumor Clinic at Cleveland City Hospital and senior clinical instructor in surgery at Western Reserve University School of Medicine, spoke on "Newer Aspects of Cancer Management", at a meeting of the academy, Monday, January 8, at General Hospital, Portsmouth.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

DELAWARE

At a meeting in Delaware, Tuesday, December 5, the Delaware County Medical Society elected the following officers for 1940: Dr. Dorrence S. James, Delaware, president; Dr. J. K. James, Delaware, vice-president; Dr. F. M. Stratton, Delaware, secretary-treasurer; Dr. A. R. Callander, Dr. J. G. Parker, and Dr. Irwin I. Abrams, Delaware, legislative committee; Dr. M. S. Cherrington and Dr. Stratton, Delaware, and Dr. H. W. Davis, Ashley, public relations committee; Dr. G. E. Robinson, Ostrander; Dr. Kendall Kennedy, Ashley, and Dr. G. Y. Swickard, Sunbury, medical economics committee; Dr. M. W. Davies,

Delaware, delegate; Dr. W. E. Borden, Delaware, alternate.—M. S. Cherrington, M.D., retiring secretary.

FAYETTE

Dr. Judson D. Wilson, Columbus, gave a very interesting talk on "Backaches" at a meeting of the Fayette County Medical Society, Thursday noon, January 11, at the Cherry Hotel, Washington C. H.—James F. Wilson, M.D., secretary.

MADISON

Dr. W. A. Holman, London, was elected president, and Dr. J. W. Hurt, West Jefferson, secretary-treasurer, at a meeting of the Madison County Medical Society, Thursday, December 28, at London. Other officers of the society were to be selected at the January meeting of the society.—J. W. Hurt, M.D., secretary.

MORROW

At a meeting of the Morrow County Medical Society, Wednesday, December 20, at Mt. Gilead, the following new officers were elected: Dr. F. M. Hartsook, Cardington, president; Dr. C. S. Jackson, Mt. Gilead, vice-president; Dr. F. H. Sweeney, Mt. Gilead, secretary; Dr. R. L. Pierce Mt. Gilead, treasurer; Dr. C. E. Sherman, Cardington, legislative committeeman; Dr. Lowell Murphy, Cardington, delegate; Dr. J. P. Ingmire, Mt. Gilead, alternate.—Frank H. Sweeney, M.D., secretary.

FRANKLIN

Columbus Academy of Medicine presented the following programs during January:

January 8—"Surgery and Medicine in Review—1939". Dr. L. N. Jentgen, "Medicine"; Dr. P. H. Charlton, "Surgery"; Dr. Geo. T. Harding, "Neurology"; Dr. Hugh Thompson, "Eye, Ear, Nose and Throat".

January 11—Section in General Medicine. "Eclampsia", by Dr. Roy E. Krigbaum; "Latest Research on Eclampsia", Dr. Harry L. Reinhart.

January 22—Symposium—"Cancer of the Cer-

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METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

V. The Determination of Riboflavin

● In 1929, the so-called "water-soluble vitamin B" was considered to be composed of two factors, heat-labile vitamin B and heat-stable vitamin G (American nomenclature). General recognition of the existence of vitamin G stimulated research on methods for its quantitative estimation. As a result, a number of bioassay methods for vitamin G were evolved (1, 2) and widely used to determine the vitamin G values of foods.

By 1937, however, it was evident that the heat stable fraction of the vitamin B complex was not a single entity, but rather a mixture of essential factors, among them the yellow-green fluorescent pigment, riboflavin (3). Hence, another chemical compound has recently attained significance in human nutrition (2, 4). The establishment of specific methods for the determination of riboflavin in foods immediately became of interest to workers in the field of nutrition.

As to methods for estimation of riboflavin, it is commonly accepted that the Bourquin-Sherman bioassay method (5)—originally devised for vitamin G—measures riboflavin rather than any other factor (2). This method provided for depletion of the body stores of young rats by confinement to a specified "vitamin G-free" diet and determination of the growth response of the animals to graded supplementary doses of the material under assay. One Bourquin-Sherman vitamin G unit is now considered

equivalent to 2.5 micrograms (1/1000 milligram) of riboflavin, the probable average value being about 3 micrograms.

Attempts have also been made to devise a physico-chemical method for estimation of this factor. The yellow-green fluorescence of riboflavin solutions—reaching its maximum between pH 6.0 and pH 7.0—is one of the distinctive properties of this compound (6). The measurement of the intensity of this fluorescence appears to be a promising method for estimating the riboflavin content of a suitably prepared solution, within certain ranges of riboflavin concentrations. However, many difficulties such as the complete extraction of riboflavin from foods and the removal of interfering materials from the extract must be overcome before fluorometric methods can be applied to the determination of riboflavin in all foods. However, recent reports demonstrate that fluorometric methods are adaptable to the estimation of riboflavin in certain specific foods and that a reasonable correlation may be expected between values determined by fluorometric and bioassay methods (7).

From available information (8), it is apparent that riboflavin possesses a high degree of heat stability and is not significantly affected by commercial canning procedures. Thus, the many varieties of canned foods available to the consumer provide convenient and economical sources of this dietary essential.

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- (1) 1931. The Vitamins, Second Edition, H. C. Sherman and S. L. Smith, Chemical Catalog Co., New York.
- (2) 1939. The Vitamins: A Symposium, page 289. American Medical Assn., Chicago.
- (3) 1939. The Vitamins: A Symposium, page 127. American Medical Assn., Chicago.
- (4) 1939. U. S. Pub. Health Rpts. 54, 2121.
1939. U. S. Pub. Health Rpts. 54, 790.
1939. J. Am. Med. Assoc. 113, 1697.
- (5) 1931. J. Am. Chem. Soc. 53, 3501.
- (6) 1939. The Vitamins: A Symposium, page 249. American Medical Assn., Chicago.
- (7) 1939. Ind. Eng. Chem. Anal. Ed. 11, 495.
1937. J. Am. Chem. Soc. 59, 1153.
- (8) 1938. Nutrition Abstracts and Reviews 8, 281.
1932. J. Nutrition 5, 307.
1934. J. Nutrition 8, 449.
1935. J. Am. Diet. Assoc. 11, 343.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-sixth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

vix and its Complications", by Dr. V. A. Dodd, Dr. E. T. Kirkendall, Dr. H. B. Davidson, Dr. Wynne Silbernagel and Dr. E. J. Stedem.—Bulletin.

ROSS

Dr. Elmer G. Horton, Columbus, spoke on "Fifty Years of Pediatrics" at a meeting of the Ross County Academy of Medicine, Thursday evening, January 4, at the Warner Hotel, Chillicothe.—News clipping.

UNION

Officers of the Union County Medical Society for 1940 are: Dr. J. Dean Boylan, Milford Center, president; Dr. E. J. Marsh, Broadway, vice-president; Dr. Alton J. Johnston, Marysville, secretary-treasurer; Dr. Angus MacIvor, Marysville, legislative committeeman; Dr. F. C. Callaway, Marysville; Dr. Marsh, Dr. MacIvor, Dr. B. E. Ingmire, Plain City; Dr. H. C. Duke, Richwood; Dr. Boylan, and Dr. H. G. Southard, Marysville, public relations committee; Dr. Duke, Dr. MacIvor and Dr. Boylan, medical economics committee; Dr. Southard, delegate; Dr. Boylan, alternate.—H. G. Southard, M.D., retiring secretary.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ERIE

Officers of the Erie County Medical Society for 1940 are: Dr. A. R. Grierson, Sandusky, president; Dr. F. E. Reed, Huron, vice-president; Dr. Ross M. Knoble, Sandusky, secretary-treasurer; Dr. H. N. Sarchet, Dr. W. D. Burger and Dr. H. L. Sowash, Sandusky, legislative committee; Dr. H. W. Lehrer, Dr. W. D. Parker and Dr. J. L. Carroll, Sandusky, public relations committee; Dr. P. N. Squire and Dr. G. A. Stimson, Sandusky, and Dr. E. C. Alexander, Castalia, medical economics committee; Dr. Knoble, delegate; Dr. Sowash, alternate.—Ross M. Knoble, M.D., secretary.

HURON

At a meeting of the Huron County Medical Society, Friday evening, December 15, at the Willard Municipal Hospital, the following officers were elected for the ensuing year: Dr. J. D. Bradish, New London, president; Dr. E. A. Roasberry, New London, vice-president; Dr. H. A. Erlenbach, New London, secretary-treasurer; Dr. George F. Linn, Norwalk, legislative committeeman; Dr. J. C. Steiner, Willard, public relations committeeman; Dr. T. H. Smith, New London, medical economics committeeman; Dr. Bradish, delegate; Dr. Erlenbach, alternate.—A. D. Robertson, M.D., retiring secretary.

LORAIN

The following new officers were elected by the Lorain County Medical Society, Wednesday evening, December 13, at a dinner meeting at the



NEVER TO BE FORGOTTEN MOMENTS

The thready, weakening pulse, the deepening cyanosis, the infrequent, shallow respiratory movements...then suspended minutes following intravenous injection, the reappearance of color, stronger pulse, and regular, full respiration...the doctor eases up a bit...a sigh of relief. NEVER TO BE FORGOTTEN MOMENTS . . . NEVER TO BE FORGOTTEN DRUG — CORAMINE, "Ciba" — for many such cardiac and respiratory emergencies. CORAMINE* is the diethyl amide of nicotinic acid which Spies and co-workers (J.A.M.A. 111:584, 1938) found effective in treating pellagra.



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Lorain Country Club: Dr. Frank R. Dew, Oberlin, president; Dr. Russell M. Arnold, Avon Lake, vice-president; Dr. I. Leonard Levin, Lorain, secretary-treasurer; Dr. Charles R. Meek, Lorain, and Dr. George D. Nicholas, Elyria, delegates; Dr. Robert A. Stack, Lorain, and Dr. A. S. McKittrick, Elyria, alternates.

Members of the society were guests of Superintendent A. E. A. Hudson at Elyria Memorial Hospital, Tuesday evening, January 9. Dr. Murray Scott of the research staff of the Upjohn Company spoke on "Sterility and the Gonadotropic Hormone", and Mr. Hudson discussed "Hospital Service in Relation to the Physician".—I. L. Levin, M.D., secretary.

MEDINA

Officers of the Medina County Medical Society for 1940 are: Dr. J. L. Jones, Medina, president; Dr. J. R. Moorehead, Seville, vice-president; Dr. Morris Wilderom, Medina, secretary-treasurer; Dr. R. L. Mansell, Medina, legislative committeeman; Dr. H. T. Pease, Wadsworth, chairman; Dr. J. L. Beach, Seville; Dr. E. C. Bell, Lodi, and Dr. Wilderom, public relations committee; Dr. Pease, delegate; Dr. H. G. Lehrer, Wadsworth, alternate.—Morris Wilderom, M.D., secretary.

RICHLAND

A DeLee obstetrical film was presented at a meeting of the Richland County Medical Society, Thursday afternoon, January 18, at Mansfield General Hospital.—D. D. Deeds, M.D., secretary.

WAYNE

Wayne County Medical Society has elected the following officers for 1940: Dr. F. C. Ganyard, Wooster, president; Dr. L. A. Yocum, Wooster, vice-president; Dr. R. C. Paul, Wooster, secretary-treasurer; Dr. J. B. Beeson, Dr. E. W. Douglas, and Dr. W. A. Fritz, Wooster, legislative committeemen; Dr. O. P. Ulrich, Orrville, Dr. H. J. Mitchell, Fredericksburg, and Dr. W. A. Morton, Wooster, public relations committee; Dr. A. J. Hartzler, Dr. L. A. Adair, and Dr. L. G. Strauss, Wooster, program committee; Dr. Paul, delegate; Dr. Adair, alternate.—R. C. Paul, M.D., secretary.

Cincinnati—Dr. Merrill F. Steele, superintendent of Christ Hospital, said that group hospitalization was an important step in the prevention of state-controlled medicine, in an address at a civic dinner under the auspices of the local hospital care corporation.



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Buckeye News Notes

Ansonia—Dr. C. I. Stephen is convalescing after a three months' illness.

Ashland—Dr. George M. Emery has resigned as commanding officer of Co. H of the 112th Medical Regiment, Ohio National Guard. His successor is Dr. R. P. Bogniard.

Ashtabula—Motion pictures taken on a trip to Hudson Bay and Baffin Bay last summer were shown by Dr. Donald D. Forward at a meeting of the Exchange Club.

Athens—Dr. H. H. Fockler and his wife, Dr. Beatrice Postle, formerly on the medical staff of the Columbus State Hospital, are now members of the staff at Athens State Hospital.

Bellaire—Dr. Ellis P. Cope is taking a post-graduate course in dermatology in New York City.

Bellefontaine—Dr. and Mrs. C. L. Barrett announce the arrival of a baby daughter, Barbara. Dr. Barrett is the new president of the Logan County Medical Society.

Cadiz—Dr. John S. Campbell, president of the Third Equitable Building and Loan Company, was presented with a gold watch in recognition of his 40 years' service on the board. Dr. Campbell has practiced in Cadiz since September 7, 1889.

Cincinnati—Dr. Carl A. Wilzbach, city health commissioner, spoke on "Physical Adjustments for Happiness in Married Life" at a meeting of the Registered Engineers and Surveyors' Chapter of the Engineers' Club.

Cincinnati—Dr. Hiram B. Weiss is the new director of medical service at Hamilton County Chronic Disease Hospital. The position had been vacant since the death of Dr. Alfred Friedlander last spring.

Cleveland—Dr. David Steele discussed various phases of the cancer problem and stressed recent advances in the treatment of cancer by X-ray at a meeting of the Calhoun County Medical Society, Battle Creek, Mich.

Cleveland—Dr. Ralph M. Watkins has been selected by the Board of Directors of the Cleveland Academy of Medicine to fill the vacancy on the Board caused by the death of Dr. Theodore Miller.

Columbiana—Dr. Lee Bookwalter was the speaker at a recent meeting of the Columbiana County Graduate Nurses' Association.

Columbus—Dr. Wayne Brehm is the new chairman of the Franklin County Council of the American Legion.

Coshocton—Dr. W. F. Lyons is the new city health commissioner, succeeding Dr. J. D. Lower.

Cuyahoga Falls—Dr. W. J. Urban, medical di-

rector of Fair Oaks Villa, resigned January 1 to join the staff of the Southern Wisconsin Colony, a state institution for the mentally deficient, at Union Grove, Wisconsin.

Dayton—Dr. Sterling H. Ashmun and Dr. C. J. Derby have been re-elected president and secretary, respectively, of the staff of St. Elizabeth Hospital. New officers of the executive board are Dr. E. A. Zimmerman, Dr. Kenneth Fowler and Dr. W. B. Taggart.

Dayton—The history of syphilis was discussed by Dr. Edgar L. Braunlin at a meeting of the Triangle Club.

Dayton—Officers of the Miami Valley Hospital Staff are: Dr. A. B. Brower, chief; Dr. H. R. Stockwell, vice-chief, and Dr. R. F. Corwin, secretary.

Edon—Dr. Albert Hathaway was 90 years old on December 19.

Fremont—Dr. C. L. Smith has been appointed city health commissioner, succeeding Dr. E. L. Vermilya who resigned after 31 years' service in that post.

Hillsboro—Dr. J. C. Larkin, Jr., has received an appointment from the University of California Medical School, San Francisco, to do research work in neutron therapy.

Kent—Dr. W. B. Andrews, who has been ill for the past month, is improving slowly.

Kenton—Dr. Harold E. Gibson is a new member of the local board of health.

Lima—Staff officers of St. Rita's Hospital are: Dr. James W. Halfhill, chief; Dr. Walter A. Noble, vice-chief, and Dr. M. B. Barker, secretary.

Marathon—Dr. and Mrs. J. L. Fomorin recently celebrated their 50th wedding anniversary. Dr. Fomorin has practiced medicine here for 51 years.

Marietta—Dr. A. Howard Smith discussed socialized medicine and pointed out the alternatives to such a system at a meeting of the Washington County Bar Association.

Mt. Vernon—Dr. H. W. Blair has resigned after 19 years as health commissioner of Knox County. His successor is Dr. J. O. Crist, Centerburg.

Napoleon—Dr. Ronald B. Kieffer has been appointed coroner of Henry County.

Newark—Dr. Roland W. Jones is the new president of the local board of education.

Painesville—Dr. B. Spencer Park spoke on "The Endocrine Glands and Their Influence on Our Life", at the Fall meeting of the Lake County Federation of Women's Clubs in Willoughby.

Pomeroy—Dr. E. F. Maag spoke on "The Min-

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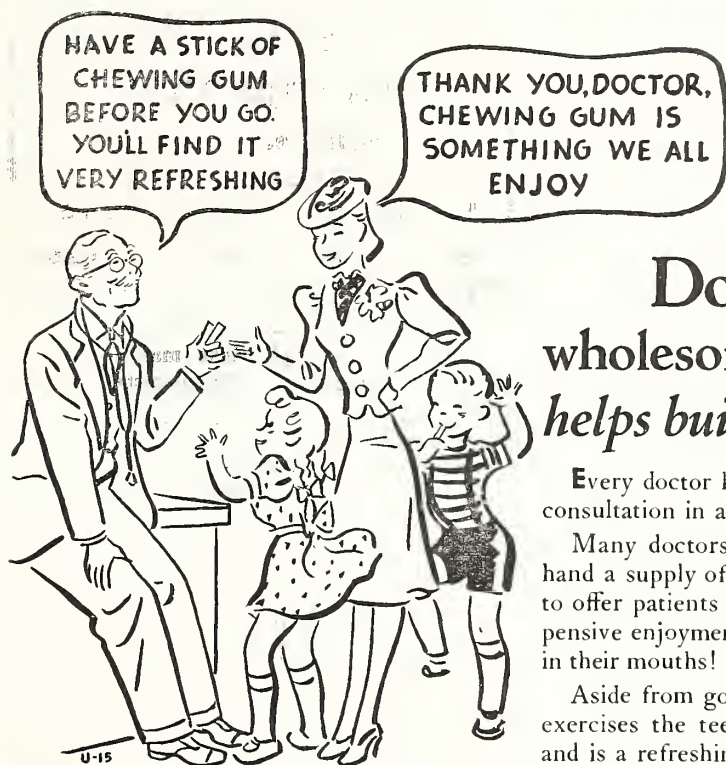
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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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ister and Public Health" at a meeting of the Meigs County Ministerial Association.

Shelby—An address on "Social Diseases" was made by Dr. E. L. Jackson at a meeting of the Mother's Study Club.

St. Clairsville—Dr. C. V. Porterfield was honored by a testimonial dinner in recognition of his 16 years' service on the local board of education.

Toledo—Recently-elected staff officers of the Lucas County Hospital are: Dr. H. B. Meader, chief; Dr. F. W. Clement, vice-chief; Dr. K. Renshaw, secretary; and Dr. E. C. Mohr, member of the executive council for four years.

Troy—Dr. L. N. Lindenberger is beginning a five-year term on the city board of health.

Van Wert—Dr. Charles R. Keyser is now serving his 21st year as county health commissioner.

Wapakoneta—Dr. E. F. Heffner, president of the Auglaize County Medical Society, was seriously injured in an automobile accident early in January.

Wapakoneta—Dr. R. C. Hunter sailed from New York January 24, cruising down the Atlantic coast to Rio de Janeiro and Buenos Aires. He will cross over the Chilean Lake district to Valparaiso and then north along the Pacific coast, returning via the Canal Zone and Havana.

Washington C. H.—Dr. James F. Wilson, secretary of the Fayette County Medical Society, has been elected health commissioner of the county for the 14th consecutive year.

Xenia—Developments in medicine during the past 50 years were discussed by Dr. Ben R. McClellan at a meeting of the Rotary Club. At the same meeting Dr. Roger C. Henderson, Clifton, compared modern medical science with past medical practice.

Youngstown—Dr. William M. Skipp, President-Elect of the Ohio State Medical Association, has recovered from painful injuries received December 24 when his automobile was demolished by a hit-skip driver who failed to observe a boulevard stop.

Youngstown—Staff officers of St. Elizabeth's Hospital for 1940 are: Dr. F. W. McNamara, chief; Dr. E. H. Nagel, vice-chief; Dr. Saul Tamarkin, secretary-treasurer; Dr. J. M. Ranz, director of surgery; Dr. A. M. Rosenblum, director of medicine; Dr. W. H. Evans, member of the executive committee; and Dr. C. D. Hauser, staff representative to the Associated Hospital Service, Inc.

Youngstown—Dr. Robert G. Mossman is the new city health commissioner. He was selected by Mayor William B. Spagnola from a list of five physicians recommended by the Mahoning County Medical Society.

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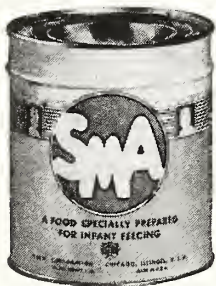
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The Physician's Bookshelf

Attaining Womanhood, by George W. Corner, M.D., (\$1.00. *Harpers, New York City*) is an ideal volume for a growing girl to read. It presents sex facts to her in the same sane, straightforward way that the famous anatomist did for his own son in the volume, *Attaining Manhood* (see *The Journal*, March, 1939).

A Basket of Fragments from a Doctor's Record, by A. J. May, M.D., (\$2.00. *Pyramid Press, New York City*) presents in an attractive form some 44 poems written by the author during his 50 years of practice in and around Salina, Kansas. Pleasant reading! A happy gift to a medical student!

Diseases of the Ear, Nose and Throat, by Francis L. Lederer, M.D. (2d Ed., \$10.00. *F. A. Davis Company, Philadelphia*) is a second edition coming within the year! It is a volume of 840 large pages covering the whole field in a complete fashion so that it will serve the general physician well who wishes to brighten up that corner of his library.

The Art of Anaesthesia, by P. J. Flagg, M.D. (*J. B. Lippincott Company, Philadelphia*), has held its place as an outstanding book since 1916. Its author is one who has done so much in the solution of the problems of asphyxia and extends his text to cover the field of gas therapeutics. It has always seemed to your reviewer that if specialists in this field would become just this—gas therapists—it would do much to stop the danger of confusing them with nurses and the other hired help around the hospital.

Diagnostic Signs, Reflexes, and Syndromes, Standardized, by W. E. Robertson, M.D., and H. F. Robertson, M.D. (\$3.50. *F. A. Davis Company, Philadelphia*) is alphabetical list with adequate definitions and descriptions. It does make a world of information available in the minimum of space.

Essentials of Fevers, by Gerald E. Breen, M.D. (\$3.00, *Williams and Wilkins, Baltimore*), presents the subject in a handy pocket volume for the young practitioner. The author, a well known

British authority, complains bitterly of the fact that little is made of the subject in British Medical Schools and yet that so much of a physician's reputation depends upon his knowledge of it. The book serves its purpose well.

Nutrition and Diet in Health and Disease, by James S. McLester, M.D. (\$8.00. *W. B. Saunders Company, Philadelphia*) is the third edition of this useful book. With the rapid developments in this field, this book is a necessity because of its information and its clinical approval.

Physiology In Health and Disease, by Carl J. Wiggers, M.D. (\$9.50. *Lea and Febiger, Philadelphia*) is the third edition of this text by the professor of physiology at Western Reserve University. It has been carefully and thoroughly revised so that it makes an excellent book of reference for the practitioner as well as text for the medical student.

A Topographic Atlas for X-Ray Therapy, by Ira I. Kaplan, M.D. and Sidney Rubinfeld, M.D. (\$4.00. *The Year Book Publishers, Inc., Chicago*) consists of 55 excellent plates. Each carries with it a page of text setting forth landmarks, position of the cone, and direction of the cone to be used in the treatment of each of the special organs. It is indeed a beautiful atlas.

Functional Disorders of the Foot, by Frank D. Dickson, M.D. and Rex L. Diveley, M.D. (\$5.00, *J. B. Lippincott Company, Philadelphia*) supplies confirmation to a pet idea which your reviewer has held for years. It has always seemed too bad to us that the treatment of functional disorders of the feet should have fallen largely into non-medical hands. Too bad for the public and too bad for the profession for here lies a neglected form of medical services for which people are actually much more willing to pay for than most any other functional disorder. Because we have been too proud we have allowed this work to be taken over by the osteopath, the chiroprapist and even the shoe salesman. As honest and conscientious as most of the practitioners are, the fact is that they have not had the background and medi-

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cal training necessary to one who takes on this responsibility. Here is a medical problem of great economic importance in which most of us are interested even though we are barely making a living as it is. The truth is that in any metropolitan center, this field will make for one specializing in it an income equal to almost any in the community and the shift from general practice would be so easy. Then, too, it can readily be taken up as a sort of hobby as a service to the patients of any general practice and thus supplement the annual income by a couple of thousand each year. Better get the book and read it to see whether your reviewer has not got something here—something that you can use.

Historical Directory of State Health Departments of the United States of America, by Robert G. Patterson (Published by the *Ohio Public Health Assn., Columbus, Ohio*), presents an immense amount of information not otherwise obtainable except through great effort. It traces the various changes in organization, personnel, policies, and publications of the several state health departments from their beginning and in this way serves as a basic source of information.

Medical Climatology. Climatic and Weather Influences in Health and Disease, by Clarence A. Mills, M.D. (\$4.50, *C. C. Thomas, Springfield, Ill.*), presents a study of the extrinsic factors of climatic and weather influences that basically affect the fundamentals of human existence and is the work of a member of our own society. The information presented on tuberculosis, rheumatic fever, heart disease, leprosy, sclerosis, failure of the vascular system, arthritis, diabetes and many other diseases is striking and can be put to practical use by every physician.

Diseases of the Skin. By Richard L. Sutton, M.D. and Richard L. Sutton, Jr., M.D. Tenth Edition, (\$15.00, *C. V. Mosby Company, St. Louis*), has grown to a ponderous but useful volume of 1549 pages. Ten color plates and some 340 new illustrations. By condensation of type and page enlargement the total number of words has been increased 100 per cent and 7,000 new bibliographic entries have been added. A very practical encyclopedic text on Dermatology which every physician doing medicine needs for his day's work.

Nutrition and Physical Degeneration, by Weston A. Price, D.D.S. (\$5.00, *Paul B. Hoeber, Inc., New York City*), sets forth in detail what its author tried to tell us in a brief hour at the time of our last Dayton meeting. It is a definite contribution to the most important problem facing our civilization. It teaches that physical degeneration results in most instances from improper diet either because of ignorant social customs of the civilized man or because of a con-

stantly increasing depletion of our soil. Every physician should carefully inform himself about what is known of this problem and appoint himself as educator of all with whom he comes in

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contact about what we can do about it. He must therefore study this book as one of a group of texts which alone can save our civilization from destroying itself. Half-baked theories and childish emotions come from half-fed bodies. Proper nutrition produces adult individualists who can meet problems and solve them. If you have not already done so, get this book and begin this important work among your own people.

The International Medical Annual. A Yearbook of Treatment and Practitioners Index. 57th year, 1939. (\$6.00, *Williams and Wilkins, Baltimore*). Here British authorities review the year by subjects arranged in alphabetical order from Acute Abdomen to Yaws. A handy book of reference deserving a wider distribution among the physicians of Ohio.

Gynecology, Medical and Surgical, by P. Brooks Bland, M.D. and Arthur First, M.D. (\$8.00. *Third Edition. F. A. Davis Company, Philadelphia*) presents more detailed description of the anatomy and physiology; more emphasis has been placed upon the endocrines; a special chapter has been added on Endometriosis. It has been improved by adding 150 new illustrations.

The Vitamins. A Symposium Arranged Under the Auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the A.M.A. (\$1.50. *American Medical Association, Chicago, 1939*). So much information has become available about the vitamins, that it is difficult even for experts to keep up with the literature. The present volume is a welcome compendium of authoritative information about these necessary food factors.

Experimental Pharmacology and Materia Medica, by Dennis E. Jackson. (\$10.000. *C. V. Mosby Company, St. Louis*) is a second edition of this text first printed in 1917. Its author is well known to us as the professor of pharmacology, materia medica and therapeutics in the University of Cincinnati College of Medicine. A sound text, soundly conceived, and executed in the best traditions of teaching.

The Newer Knowledge of Nutrition, by E. V. McCollum, E. Orent-Keiles, and Harry G. Day. (\$4.50. *Fifth Edition, Macmillan Company, New York City*) is the standard monograph on this subject and one which no physician should fail to read.

An Introduction To Medical Mycology, by George M. Lewis M.D. and Mary E. Hopper. (\$5.00. *The Year Book Publishers Inc., Chicago, Illinois*) is a much needed book. The subject is of the greatest importance but up to the appearance this volume all seemed so hopeless. Super-

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ficial mycoses, the deep mycoses, their relation to compensable diseases, and finally the increasing important allergic manifestations (asthma and hay fever) makes it imperative that most of us learn something about this subject and this is by far the best book to use in beginning the study.

Maternal Care In a Rural Community, Pike County, Mississippi, 1931-1936, by Maxwell E. Lapham, M.D. (25 cents. *Commonwealth Fund, New York City*) is the study of a southern county, largely rural, half negro. Here nearly half of the controllable deaths were due to the patient herself or her family, and the maternal death rate higher than the rate for the state as a whole, and that for the nation. All who are interested in statistical analysis of our puerperal death rate will find this booklet important and valuable.

Moses and Monotheism. By Sigmund Freud, *Alfred A. Knopf, New York*. Freud, with his still keen psychoanalytical knife, has laid bare the bones of the two monotheistic religions, Judaism and Christianity.

By psychoanalytic and collateral evidence he postulates that Moses, a high-caste Egyptian, chooses the Jews to be his people. He thus becomes the Father and, by projection, God. (Whence the phrase, "God's chosen people".) Following the teachings of the Pharaoh Amon-ho-tep, "the first individual in history", he formulates the ideal of an only God. But the Jews kill Moses and the priests suppress this history, carrying on the tradition only among themselves.

Freud believes that ontology repeats phylogeny as truly in the development of the sub-conscious mind as in anatomical history.

Thus in the mind of Judaism he has lain the mental-childhood groundwork for an obsessional neurosis—an Oedipus complex—the Father has been killed, and the facts suppressed.

A period of latency and then history repeats itself—God visits the earth in the person of Christ; but this time as the Son, not the Father. But in the primitive story the Son killed the Father. Therefore the Son himself is killed in punishment. Only in this way, according to Freud, can we understand the doctrine of original sin (as expounded by Paul), which is washed away by the death of Christ. The Jews who believe in Christ then have had their original sin exposed and are redeemed. These become Christians. The non-believers are the Jews, who still must suffer the consequences of the mass neurosis. This fundamental difference explains the Jewish mind.

All this is incredibly profound or incredible balderdash, according to the reader's bent. More and more, it seems to the writer, Freudianism takes on all the earmarks of a religion, of which

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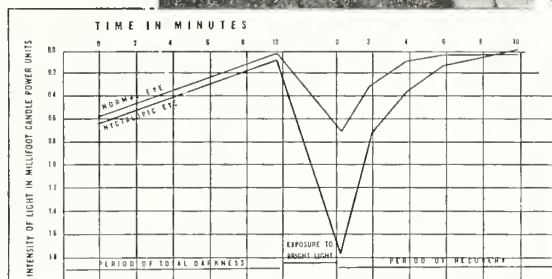


This page is the second of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A two-page insert on the same subject appears in the February 17 issue of The Journal of the American Medical Association.

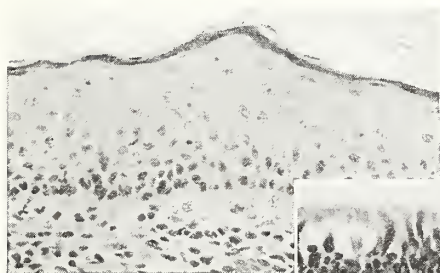
Manifestations of Vitamin A Deficiency

One of the early manifestations of vitamin A deficiency is nyctalopia, a loss of visual acuity in dim light. While several pathologic states (retinitis pigmentosa, toxic amblyopia, detachment of the retina) also produce night blindness, vitamin A deficiency is probably the most frequent cause. After exposure to the blinding glare of a bright light the normal eye adapts itself relatively quickly to lowered illumination. In nyctalopia due to vitamin A deficiency, the time required for recovery of visual acuity is longer.

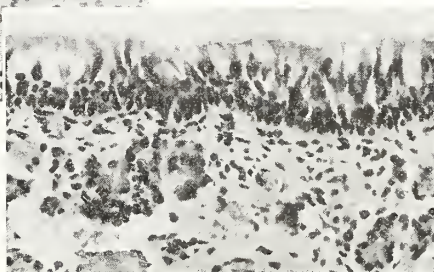
In otherwise normal eyes, measurement of capacity for dark adaptation by means of the biophotometer has been suggested as a method of discovering vitamin A deficiency.



Lower line shows the longer time required for the recovery to pre-exposure level by the nyctalopic.



Above, stratified, keratinizing epithelium of the turbinate mucous membrane of a vitamin A deficient monkey; at right, normal mucosa



Pathologic epithelial changes produced by vitamin A deficiency are illustrated by the photomicrographs of turbinate mucous membrane taken from normal and vitamin A deficient monkeys. The progressive pathologic process consists of atrophy of the epithelium, reparative proliferation of the basal cells and finally, as depicted in the upper photograph, replacement of the normal by a stratified, keratinizing epithelium.



the most necessary requirement is Faith. By no possible criterion can this work be considered scientific, yet deep within one there tinkles a responsive note as if one has faintly chimed the bell of an eternal verity.

For those of us whose bell-wether is already Nietzsche, Jesus, or another, this work will have no effect; for the leaderless flock Freud may have an appeal all his own.

Of more immediate interest is Freud's explanation of Nazi anti-semitism. This by-product, too long to be detailed here, should be scanned by all those interested in the phenomenon.—Frank A. Riebel, M.D.

Medical Care. A symposium presented in the Autumn, 1939, issue (Vol. VI, No. 4) of *Law and Contemporary Problems, Duke University Law School, Durham, N. C.* (\$0.75, postpaid). Those who are interested in the details of ways and means, private and governmental, employed or proposed for extending the availability of medical care should have this symposium at hand for ready reference. Special treatment is given to legal and administrative problems. As the foreword points out, the treatise endeavors "to indicate something of the anatomy, physiology, and pathology of the legal institutions which are being developed or may be called into being". It leads off with a presentation of national problems in medical care and closes with a study of the formulae for grants-in-aid in the Wagner National Health Bill. Between these two chapters we find discussions of the following: Experimentation through voluntary medical service plans; ethical and legal restrictions on contract and corporate practice of medicine; enabling legislation for non-profit hospital service plans and analyses of such plans; discussions of non-profit medical service plans in Michigan and California; review of the medical care program of the Farm Security Administration; digest of the anti-trust suit against the American Medical Association; summary of legislative proposals for compulsory health insurance; study of disability insurance problems; and several chapters devoted to details of the Wagner Bill. One may disagree with some of the statements made in several of the contributions but has no reason to complain about the selection of the contributors themselves, all of whom have done a commendable job of research and several of whom enjoy a national reputation in the field of medical economics.

Wooster—Dr. and Mrs. John J. Kinney recently celebrated their golden wedding anniversary and the 50th anniversary of Dr. Kinney's entrance

Youngstown—Dr. W. C. Autenreith is the new president of the local Nobles of the Mystic Shrine, a club which carries on an extensive program of community service.

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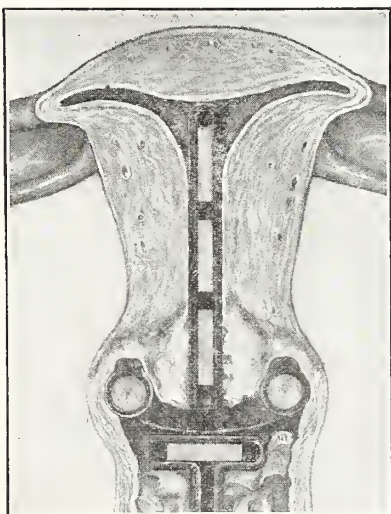


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The Comparative Use of Sulfapyridine and Specific Serum in Pneumococcal Pneumonia

JAMES M. RUEGSEGGER, M.D., MORTON HAMBURGER, M.D.,
and SARAH L. COCKRELL, M.D.*

IN the middle of 1938, Evans and Gaisford¹ reported striking results in the treatment of pneumonia by means of a derivative of sulfanilamide. Since that time, many reports^{2,5} have appeared, showing that sulfapyridine is a very effective agent, not only in pneumococcal pneumonia, but also in other acute pneumococcal infections. Despite the dangers inherent in chemotherapy, it appeared for a while that this new agent was to be accepted to the exclusion of other methods of therapy whose efficacy had been known for a long time. It, therefore, seemed timely to compare the efficacy of sulfapyridine with the other therapeutic agent employed in pneumococcal pneumonias, namely, type-specific anti-pneumococcal serum.** The alternate case method was employed for a period of approximately six months. Only those pneumonias of less than 120 hours' duration were included in this study. Types I to VIII were alternated within the individual types; the higher types IX to XXXII were alternated without regard to type. Occasionally, when serum was not immediately available for one of the higher types, that patient was given the drug and no attempt was made to compensate for the serum series.

Patients who had more than one type of pneumococci in their sputa were not classified until a lung suction or blood culture disclosed the pre-

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cise cause of the disease. As an auxiliary study, pneumonias of more than five days' duration were given only supportive therapy except those who were shown to have blood-stream invasions; these patients were given sulfapyridine exclusively and comprise a series to be reported later. Dosage of serum was 100,000 to 200,000 units for the non-bacteremic cases, and roughly double those amounts for bacteremic patients. Patients receiving sulfapyridine were given 2 gm. of the drug immediately and 1 gm. q. 4 h. night and day regardless of the patient's size or age. The drug was administered by mouth, crushed and suspended in water or milk; if vomiting occurred within 30 minutes, the dose was repeated. Blood

*From the Department of Internal Medicine, University of Cincinnati College of Medicine and the Cincinnati General Hospital.

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**The authors are indebted to Dr. W. G. Malcolm of the Lederle Laboratories, Inc. for the generous supply of sulfapyridine and anti-pneumococcal serum used in this study.

RESUME OF CASE HISTORIES

Number	Bacteriology			Therapy			Remarks	Outcome
	Color	Sex	Age	Sputum	Blood	Lobes Involved		
1	C	F	27	I	neg	LL	140,000	L
2	W	F	21	I	neg	RM,RL	100,000	L
3	W	M	33	I	neg	LL	160,000	L
4	W	M	23	I	neg	LL	150,000	L
5	W	M	37	I	I	LL	220,000	L
6	W	M	15	I	neg	LL	200,000	L
7	W	F	55	I	neg	LL,RL	120,000	L
8	W	F	26	I	neg	LL	200,000	L
9	W	M	51	I	neg	RM	32 gms	L
10	W	F	40	I	neg	RM	39 gms	L
11	W	M	32	I	neg	LL	49 gms	L
12	C	M	26	I	neg	LU	30 gms	L
13	C	M	14	I	neg	LL	16 gms	L
14	W	M	17	I	neg	RL	32 gms	L
15	W	M	35	I	neg	RU	30 gms	L
16	W	M	31	I	neg	RU	31 gms	L
17	W	M	14	II	neg	LL	188,000	L
18	W	M	37	II	neg	RL	180,000	L
19	W	M	18	II	neg	RL	200,000	L
20	C	M	39	II	II	RM,RL	120,000	L
21	W	F	39	II	II	RL	400,000	L
22	W	F	16	II	neg	LL	190,000	L
23	W	F	47	II	II	RL	1,020,000	D
24	W	M	61	II	neg	RM	240,000	L
25	W	F	34	II	neg	LL	340,000	L
26	W	M	18	II	neg	LL	120,000	L
27	C	M	31	II	II	RU,RL	38 gms	L
28	C	F	37	II	neg	RU,RL	37 gms	L
29	C	F	22	II	II	LL	32 gms	L
30	W	M	14	II	neg	RM,RL	26 gms	L
31	C	F	42	II	neg	LL	33 gms	L
32	W	M	34	II	neg	LL,LU	37 gms	L
33	W	M	32	II	neg	LU	30 gms	L
34	C	M	42	II	neg later II	RU,RL	60 gms	D
35	W	F	39	II	II	RL	20 gms	L
36	W	F	72	II	II	RM	14 gms	D
37	W	F	40	III	neg	LL	360,000	L
38	W	M	52	III	neg	LU	300,000	L
39	W	F	63	III	neg	RM	80,000	L
40	W	F	34	III	neg	RL	70,000	L
41	C	M	41	III	neg	LL	200,000	L
42	C	F	18	III	neg	LU	205,000	L
43	W	M	21	III	neg	LL,LU	39 gms	L
44	C	F	35	III	neg	RM,RL	40 gms	L
45	C	F	52	III	neg	LL	28 gms	D
46	W	M	66	III	neg	LL,RL	36 gms	D
47	C	F	35	III	neg	RM,RL	36 gms	L
48	C	F	29	IV	neg	LL,RL	144,000	L
49	W	M	55	IV	neg	RU,RL	150,000	L
50	W	M	47	IV	IV	LL,LU	136,000	L
51	W	M	54	IV	neg	LL	44 gms	L
52	C	M	29	IV	neg	LL	40 gms	L
53	W	M	71	IV	neg	RL	29 gms	L
54	C	M	46	IV	neg	LL	35 gms	L
55	W	M	41	V	neg	RU	260,000 (horse)	L
56	W	M	56	V	V	RU	340,000	L
57	C	M	16	V	neg	LL,RL	140,000	L
58	C	M	27	V	neg	RL	140,000	L
59	W	M	14	V	neg	LU	120,000	L
60	W	M	39	V	V	RL	54 gms	L
61	W	F	22	V	neg	LL,RL	23 gms	L
62	C	F	35	V	neg	RM,RL	27 gms	L
63	W	M	32	V	neg	LL	28 gms	L
64	W	F	19	V	neg	LL	40 gms	L
65	W	F	46	V	neg	RL	33 gms	L
66	W	M	16	VI	neg	LL	150,000	L
67	C	F	38	VI	neg	LL	33 gms	L
68	W	F	18	VII	neg	LL	120,000 (horse)	L
69	W	M	60	VII	neg	LL	105,000	L
70	W	M	60	VII	neg	RU	36 gms	L
71	W	F	15	VII	neg	RL	25 gms	L
72	W	M	41	VIII	VIII	RM,RL	178,000	L
73	W	M	54	VIII	neg	RM,RL	150,000	L
74	C	M	48	VIII	neg	LL,RL	160,000	L
75	C	M	31	VIII	neg	RM	35 gms	L
76	C	M	38	VIII	VIII	RU	29 gms	L
77	C	M	30	VIII	neg	LL	29 gms	L

RESUME OF CASE HISTORIES (Continued)

Number	Bacteriology				Therapy				Remarks	Outcome
	Color	Sex	Age	Sputum	Blood	Lobes Involved	Serum Total dose	Pyridine Total dose		
78	W	M	60	IX	neg	RM	200,000		No leucocytosis	L
79	W	M	42	XVIII	neg	LL	140,000			D
80	W	M	60	XVIII	neg	RL	180,000			L
81	W	F	36	XIX	neg	LL	100,000			L
82	C	F	23	XIX	neg	RL	104,000			L
83	C	M	45	XXIX	neg	RL	120,000			L
84	C	M	32	XXIX	neg	LL	100,000		No leucocytosis	L
85	W	M	43	IX	neg	LL,RL		48 gms	No apparent effect on course	L
86	C	M	67	IX	IX	RU		46.5 gms	Resolved very slowly	L
87	W	F	39	IX	neg	Patchy R		26 gms	No leucocytosis	L
88	C	M	38	XI	neg	LL		9 gms		D
89	C	M	35	XII	neg	Hilar L		38 gms		L
90	W	F	39	XII	neg	RM,RL		36 gms	Died with uremia	D
91	W	F	40	XIII	neg	Patchy bilateral		46 gms		L
92	W	M	36	XVIII	neg	RU,RM		29 gms		L
93	W	F	38	XXV	neg	RU		15 gms		L
94	W	F	40	XXVIII	neg	LL		16 gms		L

sulfapyridine levels⁶ were determined at frequent intervals. The drug was continued until the patient had been afebrile two days, when it was stopped abruptly in the majority of cases. Patients who received less than 8 gm. of the drug are not included in the comparative study.

There were 29 males and 16 females in the serum-treated group, and 29 males and 20 females in the group receiving sulfapyridine. The race incidence showed a greater deviation, 34 whites and 11 colored patients comprising the serum group, while 29 white and 20 colored patients fell into the drug group. Although Negroes are considered by some to be more susceptible to the disease than whites, it has been our experience⁷ in four years of hospital treatment that there is practically no racial difference in mortality percentages. The age incidence according to decades is shown graphically in Fig. 1 (patients under 13 are not admitted to the Medical Service). The serum group included a few more in the younger age group as well as a few more in the older. The distribution of types corresponds reasonably well with the expected incidence as determined from previous years' study at this hospital. The predominance of Type II infections in this series, though unusual, was not unexpected, for the distribution (of types) earlier in the season, before this study was begun, showed an unusually high incidence of this type.

The serum-treated group showed a slightly higher incidence of patients in whom on admission the pulmonary lesion was limited to one lobe, 34 having a single lobe involved and 11 showing multilobar lesions. Of the patients receiving the drug, 33 had on admission involvement of only a single lobe or part thereof, while 16 had evidence of consolidation in two or more lobes. In each group, seven patients had bacteremia; of these, one of the serum-treated group and two of those receiving the drug died.

Two patients received horse serum; rabbit serum was administered to the remainder of the group receiving specific therapy. A considerable part of the rabbit serum was from experimental lots; consequently chills and febrile reactions were not unexpected. But in no patient was the reaction of sufficient intensity to contraindicate further serum therapy. One patient developed a thrombophlebitis of the antecubital vein several days after intravenous therapy. Twelve patients developed some symptom or symptoms which presumably represented clinical serum sickness; in two this reaction was prolonged and more disconcerting to the patient than the pneumonia. One patient showed no response whatever to serum and had a spontaneous crisis four days later; this patient's sputum was checked repeatedly, but only the homologous organism was found. Two patients developed empyema subsequent to showing clinical improvement after serum therapy; both required surgical drainage of the pleural cavity.

The average dose of sulfapyridine for the entire series was about 33 gm. Ingestion of the drug was followed in slightly more than half of the patients by nausea and/or vomiting. In no instance was therapy interrupted because of vomiting. Other symptoms were noted so infrequently that it could not be ascertained whether the ingestion of the drug bore any relation thereto. Two patients showed sharp decreases in the number of circulating leucocytes, with return to normal after discontinuance of the drug. One of these patients had occasion to take the drug later under medical supervision and again exhibited a fall in the total leucocyte count. On the other hand, it was observed in three patients that a relative leucopenia was not a contraindication to this form of chemotherapy. One patient showed a rapid decrease in his erythrocyte count during drug therapy; iron therapy, in addition to discontinuing

the drug, was followed promptly by a restoration to normal.

The most dramatic effect after administration of the drug was the critical drop in temperature, which occurred usually within the first 18 hours of therapy. Unlike spontaneous or serum-induced crises, this drop of temperature was rarely associated with marked clinical improvement. There was no apparent relation between the blood sulfapyridine level and this decrease in temperature; in several instances it actually occurred when only a trace of the drug could be demonstrated in the

anti-pneumococcus serum died. Six (12.04 per cent) of 49 patients receiving sulfapyridine died.

DETAIL OF FATAL CASES

1. A. G., an emaciated, 47 year old, white woman, admitted in her fourth day of right lower lobe pneumonia. Sputum contained Pn. II. Blood culture had 200 colonies of Pn. II/cc. The initial white blood count was 11,900. She was given 1,020,000 units of serum over the course of the next four days. The blood cultures became sterile and she seemed improved. The white blood count increased rapidly and remained approximately 30,000; temperature dropped to 101-102 and remained at that level. Repeated roentgenograms failed to reveal suspected pus. On the twentieth day of her illness a thoracentesis disclosed an infected (Pn. II) exudate. The following day, closed thoracotomy was performed and she died several hours later. Permission for necropsy was not granted.

2. W. R., a 42 year old, Negro male, came to the hospital in his second day of pneumonia with consolidation of the right middle lobe. Sputum contained Pn. II and blood culture was sterile. While his white blood count was only 6,800, he showed improvement after the first day of chemotherapy and on the third day his temperature dropped to 99.5° F. There after it rose to 104° and was sustained at that level despite the same daily dose of sulfapyridine; his blood level fluctuated between 4 and 10 mgm. per cent; in the meantime, his white count increased to as much as 27,150. The upper and lower lobes on the right became involved and his blood-stream, heretofore sterile, became invaded on the eleventh day and remained so at death on the fifteenth day. Necropsy showed lobar pneumonia of the entire right lung and beginning involvement of the left lower lobe, organizing fibrinous pleuritis, purulent bronchitis, acute non-suppurative hilic lymphadenitis, myocarditis and cardiac dilatation, moderate atherosclerosis of aorta, acute splenitis and acute cystitis. Pn. II were demonstrated on direct examination of the lung exudate at necropsy.

3. H. W. was a debilitated, 72 year old, white woman with right middle and lower lobe pneumonia of four days' duration. A throat swab culture and blood culture each contained Pn. II. She died after 14 gm. of the drug when she developed pulmonary edema. Blood cultures on her second and third hospital days were sterile. A necropsy was not performed.

4. L. G., a 52 year old, Negro woman with lower left lobe pneumonia of five days' duration. She was known to have had hypertension for some years. Sputum contained Pn. III but the blood culture showed no growth. Sulfapyridine therapy depressed her temperature from 103.5 to 99.5 within the first 24 hours, and she seemed improved. On the fourth hospital day her fever increased to 102.5 and she died. Blood sulfapyridine levels fluctuated from 4.8 to 10.2 mgm. per cent. The white blood count was 12,200 on admission and dropped to 7,000. Necropsy showed acute bronchitis, confluent lobular pneumonia of the left lower lobe, acute non-suppurative hilic lymphadenitis, myocardial hypertrophy, moderate coronary sclerosis, arterio- and arteriolonephrosclerosis, and cholelithiasis. Cultures of the lung, blood and pleural fluid at necropsy yielded no pneumococci.

5. W. M., a 66 year old, white man, with Type III pneumonia of the left lower lobe of three days' duration. Blood cultures were sterile. The

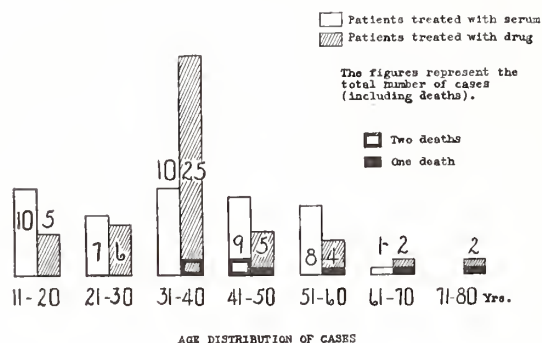


Fig. 1

blood. It apparently cleared the blood-stream in seven of the eight patients who had bacteremia, one of the patients having more than 700 colonies per c.c. at the time; the other patient developed a bacteremia after taking the drug for one week. Only one patient in this group developed an empyema and he was able to sterilize his pleural cavity without resort to surgical intervention. In this instance, it was interesting to note that sterilization took place by a gradual reduction in the number of encapsulated organisms rather than by a decapsulation of the organism as described by Telling and Oliver.⁸

DISCUSSION

No attempt has been made in this study to explain the mechanism of recovery from pneumococcal pneumonia. Rather there has been a comparison of two accepted modes of therapy under as nearly similar conditions as is possible in clinical investigation. It is apparent from a more serious inspection of the two series of patients that neither specific serum nor sulfapyridine is entitled to an exclusive position in the therapy of pneumococcal disease of the lungs. There is no apparent incompatibility between the two agents and it is again suggested that the best results may be obtained by combining these two methods of therapy.⁹

SUMMARY

A group of 94 patients was studied over a six month period by the alternate case method. Two (4.44 per cent) of 45 patients treated with specific

white blood count remained at an approximate level of 7,000 until the fourteenth day, when it was 17,900. A total of 36 gm. of sulfapyridine effected a gradual decrease in his fever and he showed blood levels of 8-10 mgm per cent of the drug. On his fifth hospital day he developed signs of a hemiparesis. Thereafter his course was gradually downhill and his pneumonia spread to the right lower lobe. He expired on his twelfth hospital day. Necropsy disclosed acute bronchitis, confluent lobular pneumonia of lower lobes, recent infarct of spleen, toxic changes in the viscera, cerebral arteriosclerosis, congestion and edema with possibly an early thrombosis of right middle cerebral artery.

6. C. M., a 42 year old, white man with a long asthmatic history, entered the hospital on the fourth day of illness with signs of consolidation of the lower left lobe. Sputum contained myriads of Pn. XVIII, but the blood culture was sterile. 140,000 units of Type XVIII serum effected a critical drop in temperature and much improvement in his clinical picture. His white blood count was only 7,100 on admission and dropped to 4,500 the following day. Twenty-four hours after serum therapy, he died very suddenly. Necropsy revealed an acute bronchitis, lobular pneumonia with abscess formation in the left lower lobe, acute fibrino-purulent pleuritis on left, acute splenitis, toxic changes in viscera and petechial hemorrhages in the pericardium, epicardium, and pleura. The pleural contents were thought to have been gastric contents evacuated through an esophageal perforation; the fluid contained no pneumococci.

7. J. W., a 38 year old Negro admitted to the hospital in the first day of his disease, with consolidation of the left lower lobe. Pn. XI were isolated from the sputum; blood cultures remained sterile. Daily white blood counts were 6,100, 5,200, and 3,000 respectively. After 9 gm. of sulfapyridine, he developed pulmonary edema and expired. Permission for necropsy was not obtained.

8. L. R., a 39 year old, white woman with right lower lobe consolidation of one day's duration. Sputum typing showed Pn. XII but blood cultures showed no growth. White blood count was 15,400 initially, but dropped on the second day to 9,540 and remained at that level until her last day, when it went to 17,150. She improved on sulfapyridine therapy for two days, then became worse and died on her seventh day of therapy with a blood urea nitrogen of 50 mgm. per cent. Necropsy showed lobar pneumonia of the left lower lobe, acute bronchitis, toxic myocarditis with cardiac dilatation, toxic nephrosis, toxic changes in liver, acute splenitis, and mild aortic and coronary atherosclerosis. Cultures of the cerebro-spinal fluid, pleural fluid and blood at necropsy showed no growth; pneumococci could not be isolated from lung tissues ten hours after death.

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Gout

In the nineteenth century the diagnosis of gout was frequently made but in the present century one rarely hears of a case. Because of this fact it is the opinion of some that the disease is dying out. A more likely explanation, however, is that many cases were misdiagnosed gout prior to the twentieth century and that at the present time many true cases are missed. One reason that they are missed is that too many physicians cling to the ideas that there must be a high blood uric acid, tophi, and attacks in the big toe before the diagnosis can be made. It must be remembered, however, that only about 60 per cent of all cases show a high uric acid, tophi appear only after five to ten years following the initial attack, and the big toe, while affected more often than any other joint, nevertheless, is involved in only about 50 per cent of all attacks. The case presented showed no involvement of the big toe, and the blood uric acid was normal. The nodule over the elbow may be properly regarded as a tophus, but nodules in this position may be easily mistaken for the subcutaneous nodules of rheumatoid arthritis or rheumatic fever. No tophi were found in the ears.

What this case did show, however, was a history of acute, recurrent attacks of arthritis without residual joint pain or deformity. This is the most important point in the diagnosis of all cases. In addition to this point, the case presented also showed olecranon bursitis, and cyanosis and desquamation of the skin over an involved joint. These points are highly suggestive as is the positive family history. The response to specific therapy—cinchophen or colchicine—is also often a great aid in diagnosing gout. The response of gouty attacks to these medicaments is dramatically prompt when they are administered early in an attack. In the present case the wine of colchicum was given without much effect, but it was not given until seven days after admission, 17 days after the attack began. By this time the attack had almost subsided spontaneously.—Nathan R. Abrams, M.D., Cincinnati; *Jour. of Med., Cincinnati*, Vol. 20, No. 11, January, 1940.

Stricture of the Rectum (Lymphopathia Venerea)

A. GERSON CARMEL, M.D.

STRICTURE of the rectum due to lymphopathia venerea still constitutes a problem and challenge to the doctor. Experience with 100 cases of this lesion—some followed for eight years—has led to the adoption of a plan of treatment which seems to have given somewhat better results than those obtained in the past.

The condition may be defined as a chronic suppurative proctitis and periproctitis, resulting in a narrowing of the lower bowel, producing constipation, and a discharge of pus and blood, and responding positively to an intracutaneous injection with Frei antigen. It occurs predominantly in the Negro female, although other races and males are not immune.

It is now generally accepted that the disease is venereal in origin, being acquired as a result of coitus with an affected individual. The initial lesion is on the external genitals usually, and appears 3 to 21 days after exposure. Thence the infection is spread via the lymphatics. In the male the principal lymphatic drainage from the penis is to the glands of the groins. (Fig. 1). It is for this reason that buboes (suppurative lymphadenitis) are the rule, whereas anorectal lesions are infrequent. In the female, on the other hand, the principal drainage from the vagina is to the perianal and perirectal lymphatics (Fig. 2)—hence the frequency of anorectal lesions and the relative infrequency of buboes.

Whether the disease is not acquired in some cases through direct inoculation as a result of sodomy is a question that naturally arises. In this series four patients gave a positive history of sodomy.

The incidence bears a definite relationship to age, sex, and color. (Figs. 3 and 4). The youngest patient was 19 years old, the oldest 64. Ninety per cent occurred between the ages of 20 and 49—the periods of greatest sexual activity. Only 10 per cent occurred in males, whereas 90 per cent were females. Negroes comprised 82 per cent and whites 18 per cent in this series.

As pointed out by the author previously,¹ the symptoms are rather characteristic—constipation, pain, discharge of pus and blood, and loss in weight occurring in the great majority of instances.

Constipation was present in 88 per cent of the

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cases in this series. It is readily explained by the diminution in the caliber of the anorectum and by the decrease in the elasticity of its walls.

Pain was present in 88 per cent of the cases. The most frequent site was the anorectum, but it was also referred in addition and occasionally only to the perianum, abdomen, back, and lower extremities.

The anorectal pain is due to stricture, ulcers, and inflammation. That the discomfort is not necessarily commensurate with the degree of the narrowing of the lumen of the bowel was demonstrated by the comparative freedom from distress of one patient in whom the stenosis was of such degree that the tip of the little finger would not be admitted. On being questioned, she almost invariably stated that she was "feeling fine,"—and her general appearance seemed to bear this out. On the other hand other patients with considerably less constriction may be extremely uncomfortable.

Perianal pain is due to abscess formation and occasionally to superficial excoriations. The abdominal pain is usually in the lower half, either in the midline or left side. It is due to partial intestinal obstruction below. Backache referred to the sacrum was also quite common. It may be referred pain, or due to pressure on the nerves, or possibly arthritic or toxic in origin. Pain in the lower extremities was also seen and may be similarly explained. Occasionally rheumatic pains in other parts of the body were reported.

Discharge of pus and blood per anum was present in 84 per cent of the cases. Loss in weight was reported by 70 per cent of these patients.

In addition to the foregoing symptoms, a number of others were frequent, and indeed, the impression is that they actually occurred much more often than the records show.

Diarrhea was reported in 30 per cent of the

cases. This, it would seem, is explainable by three factors: (1) the presence of any lesion may act as an irritant to bowel motility and thereby induce frequent stools; (2) because of the stenosis, there is apt to be incomplete evacuation and therefore the material remaining above the stricture stimulates efforts at repeated

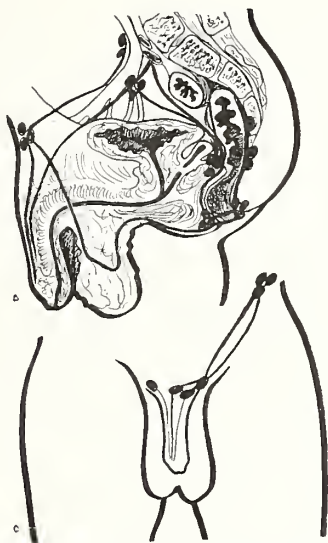


Fig. 1: Spread of infection via the lymphatics from the penis. (Hanson after Maceil).

defecations; (3) the formation of pus due to the primary and also secondary infection, in addition to the bleeding, results in an accumulation of material which is apt to be discharged numerous times during the day. Often the patient must wear a pad constantly for this reason. Straining at stool and tenesmus were also frequently present. The same factors mentioned in connection with constipation and diarrhea would serve to explain these symptoms.

Nausea was recorded in 20 per cent of the cases. It is probably due to reflex or toxic factors. It was frequently present at the time of an attempt at defecation. Vomiting occurred in 12 per cent. This also may be reflex, toxic, or due to obstruction. Anorexia, weakness, and anaphrodesia were also frequent.

CHARACTERISTIC FINDING

Regarding examination, the characteristic finding is stricture within easy reach of the examining finger, usually the lower portion being less than seven centimeters from the anal outlet. In a far advanced case, the wall is greatly thickened and markedly inelastic (Fig. 5). The lumen will not admit the examining finger and is not adequate for satisfactory bowel elimination. In a moderately advanced case, the wall is nodular and the elasticity is diminished (Fig. 6). The lumen is definitely narrowed and yet is fairly

adequate for function. In a very early case, the wall is finely granular (Fig. 7) on digital examination, or there may be felt one or two or three small bosses with normal areas intervening. Actual stenosis is not yet present and the elasticity of the wall is practically unimpaired.

These strictures differ from other strictures in several respects. Even before the examining finger reaches the stenosed segment usually a certain degree of unevenness, varying from mere roughness to nodulation, is felt. The encroachment on the lumen and the bosses do not feel like outgrowths from the mucous membrane, as for example is the case in carcinoma, but rather the result of thickenings, inelasticity and fibrosis that are preponderantly external to the mucous membrane.

Almost always as the examining finger is withdrawn, discharge of pus mixed with blood is seen. The elements in the discharge from the anus seem to be for the most part pus and blood, although a certain admixture of fecal coloring is evident in some cases. The absence of gross mucus is striking. In appearance, the discharge may be compared to melted ice cream, for it usually has a turbid, pink color due to admixture with blood, although it may also be a chocolate brown, gray or yellow. Pure pus is white or gray, while the presence of blood produces a reddish or pink color if recently passed, and brown if it has remained in the bowel for a

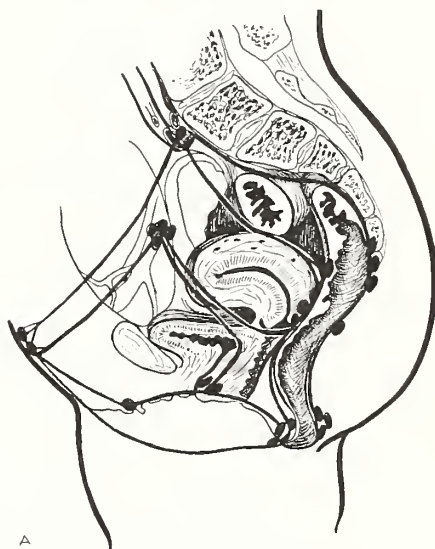


Fig. 2: Principal drainage from the vagina to the perianal and perirectal lymphatics. (Hanson after Maceil).

longer period; a yellow cast is imparted by the coloring of feces. Noteworthy also is the absence of odor to the fresh discharge in contrast to the characteristic odor of carcinoma.

The proctoscopic examination generally reveals far less than one might expect from the striking

findings elicited by the digital investigation. Usually a certain amount of discharge, as noted above, is seen. When this is wiped away, one visualizes a pale wall, relatively smooth, with decrease in the folds and mobility of the mucous membrane, and often with smooth red blotches, excoriations, or ulcerations that appear to be superficial. Deep ulcers, crater formations, piled up masses and conspicuous outgrowths are not apt to be seen, thus again differing from carcinoma.

The following findings are also frequent:

(1) Anorectal fistulae, either single or multiple. When multiple, the perianal area may pre-

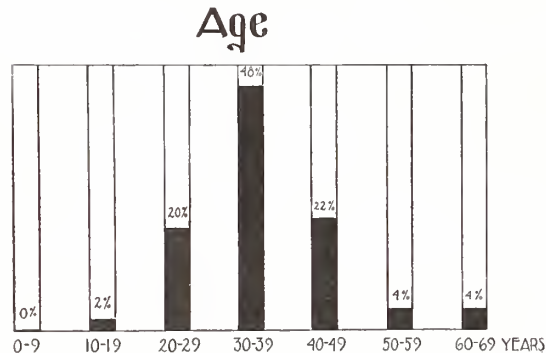


Fig. 3: Incidence in relation to age.

sent so many openings that a watering pot is suggested, and in fact in the author's experience by far the most frequent cause of the "watering pot" perianum is lymphopathia venerea.

(2) Rectovaginal fistulae. This lesion—aside from those traumatic cases secondary to parturition—has rarely been seen by the author, except in association with lymphopathia venerea.

(3) Recurrent abscesses and swellings. These are to be expected in any condition in which fistulae occur.

(4) Skin tags and cutaneous excrescences at the anal margin.

(5) Anal ulcers or fissures.

(6) Enlargements of the labia, usually the labia majora and most often the posterior portion, to varying degrees.

On vaginal examination, one can almost invariably feel a very definitely thickened, prominent rectal tube, and the gynecologist in this way may be the first to discover the rectal condition.

While the anus and lower portion of the rectum are most frequently affected, involvement of other portions of the bowel may occur. In one case, the stricture involved the sigmoid and also the descending colon. In another case a rectocolonic fistula was determined by X-ray examination. A third case, in whom a colostomy had been performed many years before, developed about the colostomy fistulae resembling the ano-

rectal fistulae that are usually seen in these cases of rectal stricture. The colostomy also became inadequate and it became necessary to establish another artificial anus at a higher level.

One case, a young Mexican female, with a well defined rectal stricture, developed a painful, fluctuant swelling about the clitoris. Aspiration as a diagnostic and therapeutic measure was performed and pus obtained. The bacteriologist reported that no organisms were found in this pus. After one aspiration, the swelling disappeared and it has not reappeared. The pus obtained was diluted and inactivated after the method of Frei and was used as a Frei antigen.

In one case the vagina was markedly narrowed, its walls inelastic and bosselated, so as to simulate the condition of the involved rectum.

The Frei test* in this series was positive in 98 per cent of the patients. A positive reaction is usually definite within 48 to 72 hours, and it persists from 7 to 30 days. In fact, it has become my custom not to regard as pathognomonic a reaction which has not persisted for at least a week and to repeat the test in such instances.

TREATMENT

Concerning treatment, aside from the operative procedures and dilatations, the measures used are original with the author, although it is not at all implied that others may not or have not been using them independently. These results have not been published heretofore, because it was felt that sufficient time had not elapsed for their evaluation.

Specific antigenic treatment was started in August, 1933. The antigen used was the same that is employed for the performance of the Frei test, and the Frei method was employed in its

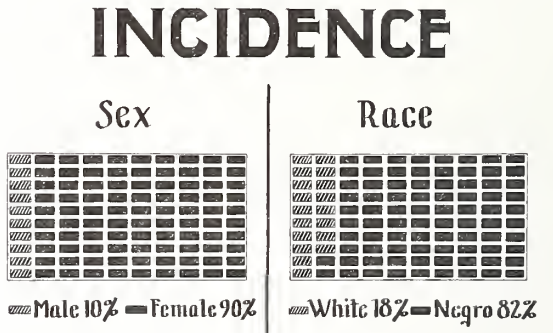


Fig. 4: Incidence in relation to sex and color.

preparation. This method is as follows: Pus is obtained from a previously unopened fluctuant bubo. Other organisms are ruled out by cultural methods. The pus is diluted, one to five or six,—although in most instances one to nine was used

* I acknowledge indebtedness to Drs. H. Lee, Tamura, and most especially to Dr. S. Goldblatt for supplying me with Frei antigen.

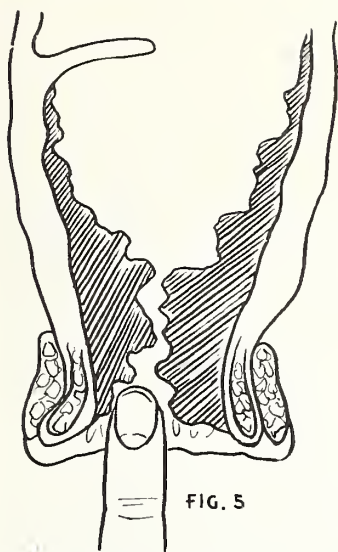


Fig. 5: A far advanced case of rectal stricture. Diagrammatic.

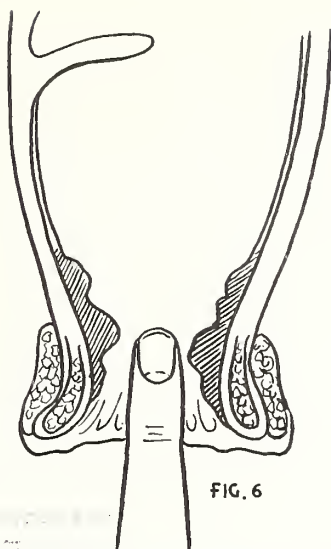


Fig. 6: A moderately advanced case of rectal stricture. Diagrammatic.

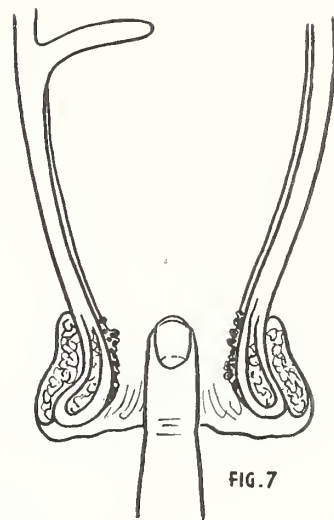


Fig. 7: An early case of rectal stricture. Diagrammatic.

in this series,—and inactivated by heating at 60 degrees for two hours one day, and for one hour the following day. Cultures for sterility are again made.

The patients were given the Frei antigen intracutaneously twice a week, starting with 0.06 cc. and gradually increasing it. Quantities above 0.1 so frequently caused pustule formation, which eventuated in ulcers and caused the patient so much discomfort that doses larger than 0.1 cc. at one site were discontinued. The optimum quantity seemed to be between 0.06 and 0.1 cc.

During the early stages of testing the Frei reactions, in many cases Frei tests were performed simultaneously with more than one antigen. It was noticed that frequently patients so injected reported improvement that was more marked than instances in which single inoculations were made. The idea then occurred to employ multiple intracutaneous injections at one visit therapeutically. The improvement when this method was used seemed to be much more rapid than when single injections were employed. However, if more than four injections were administered at one time, the patients were apt to complain of general malaise and weakness. After about a dozen multiple injections, the treatment was continued with single injections.

The results that were noticed following antigenic treatment were as follows: (1) a decided improvement in the general well-being of the patient; (2) a marked increase in appetite; (3) a definite and progressive gain in weight; (4) replacement of the miserable, toxic facies with a happy, invigorated look; (5) a diminution in the discharge of pus and blood from the rectum.

With respect to the effect upon the stricture,

in some cases it did seem that the tissues became softer, but even in them the change was not sufficient to cause one to hope that the disease could be cured by the use only of Frei antigen intradermally.

Nonspecific protein therapy was also employed. A milk product (Lactigen) was administered twice a week, beginning with 1 cc. intramuscularly and increasing the dose by 1 cc. until a total of 5 cc. were being administered at one time, then the frequency of injection was reduced to one weekly for about six months. The effects here were similar to those produced when the specific antigen was employed, but to somewhat lesser degree.

Injection therapy, either with the Frei antigen or with the lactigen, was not followed by noticeable amelioration of constipation.

To use cathartics seems illogical and contraindicated in the presence of any degree of mechanical obstruction. However, the use of a lubricant to facilitate passage of material is rational. For this purpose mineral oil orally, one half ounce twice daily was employed. Almost all patients so treated experienced some improvement in bowel function, and this simple medicament became the sheet anchor for this purpose.

Those patients not benefited by mineral oil were instructed to use enemas twice daily for several days and to continue with the oil. Fecal impactions occasionally occur. Enemas with dilute hydrogen peroxide are efficacious in overcoming this condition.

In those patients troubled with constipation and abdominal pain despite the use of mineral oil and enemas, graded dilatations were begun. One starts with a dilator that can very readily

be passed, and successively inserts larger sizes, being careful not to use force and to cause little, if any trauma. Two fingers in the vagina aid in guiding the bougie in the proper direction. Occasionally a stricture that seems exceedingly small and that will not admit one size dilator will allow its passage if smaller ones are first inserted. Usually these dilatations are performed weekly, without anesthesia, and the largest size dilator that can be passed with little discomfort is allowed to remain in situ ten minutes to one-half hour. In several instances, dilatations were performed with the patients anesthetized. Originally, I had shared the opinion of many others, viz., that dilatations are never beneficial, but on the contrary only traumatize the tissues and eventually aggravate the stricture. At present, however, I feel that this procedure when performed gently does in many cases result in more satisfactory bowel movements, and delays—and at times even obviates—the necessity for colostomy. Graded dilatations without anesthesia are preferred over the more forcible technique that is apt to be used when an anesthetic is employed, although dilatations under anesthesia should not be abandoned as a therapeutic measure, because several patients in this series who had been thus treated are happy and comparatively well several years later.

The backaches and other rheumatic pains were generally helped by phenacetin, gr. v, t. i. d. Nausea was relieved as a rule by simple peppermint water.

Prompted by the idea that possibly there is a vitamin deficiency in these cases, yeast and other vitamin products have been employed, and in some cases seemed to be beneficial.

When sulfanilamide first was placed on the market, it was employed in several instances. The results were not particularly impressive, and its use therefore was discontinued.

In a disease in which fibrotic changes play such a role, and in which it had been thought at one time that lues was a factor, it was natural to employ potassium iodide. Though this drug was used in doses as high as 90 grains per day, no instance of improvement from it was observed.

Active anti-luetic treatment likewise was administered in some of the first cases seen, irrespective of the serological reaction, but here again no improvement was noted, either in the nonluetic patients or in those with lues. Tartar emetic similarly was resorted to in a few cases, but since it failed to be followed by improvement, it was discarded.

Para-anorectal incisions, as first suggested by Jelks, were performed in two cases, and the results in both were gratifying. One case is later

summarized; the other is too recent to be included in this report.

INDICATIONS FOR COLOSTOMY

When, despite the use of more conservative measures, there is a persistence of obstruction, or pain, or excessive bleeding, or evidences of toxemia which is manifested by continued loss in weight and strength, a colostomy is indicated. The results which are to be expected are: (1) relief of constipation; (2) tremendous diminution or complete disappearance of pain; (3) marked diminution in the discharge of pus and blood; (4) gain in weight, strength and appetite; (5) return of aphrodisia; (6) relief of "arthritic" pains.

Usually the upper portion of the sigmoid colon is brought out in the lower left quadrant, and a double-barreled colostomy is performed in the customary manner. Reid and his associates, however, advocate a single loop colostomy and resection of the infected area, for they feel that by so doing the infection is more effectively combated than by a simple diversion of the fecal current, and in addition they eliminate the hazard of subsequent involvement of the artificial anus, which may occur by upward extension along the bowel from the rectal lesion when only a simple loop colostomy has been performed.

Occasionally there is bleeding from the mucous membrane of the colostomy. Ten per cent neoarsphenamine in glycerin applied to the surface has been found to be most efficacious in treating this condition.

This remedy also induces prompt healing of excoriations which sometimes appear near the anus and on the vulva in these patients, but when instilled into the rectum it has not seemed beneficial.

Two apparent cures have been effected and a brief summary of their records is here presented:

Case No. 1: L. I. D. White. Female. Age 43. Separated from husband. First seen in March, 1936. Complaint of anorectal pain, constipation and discharge. On examination, it was found that the rectal orifice was encroached upon by what appeared to be perirectal swellings. Mucous membrane also showed some inflammation. Frei test was positive. A diagnosis of proctitis and periproctitis was made. Blood Wassermann was negative. Despite the use of conservative measures, including several neoarsphenamine injections, her condition became progressively worse (Fig. 8). On June 9, 1936, three para-anorectal incisions were made. One began 1.5 cm. posterior to the anal margin and extended to the coccyx. Hard, thick fibrotic tissue was cut out and the cavity thus made was packed. The second incision, three inches long, radiated outward just external to the external sphincter in the left posterior segment. Blunt dissection was then used, and indurated tissue was incised, care being taken not to go through the rectal wall. This was packed. A third similar incision was made in the right

posterior perianal segment. On the fifth day post operative, part of the packing was removed and thereafter portions of it were removed each day until none was left. Seven weeks after operation the patient subjectively felt she was cured, but on examination perirectal fibrosis still was present. A fistula posteriorly was found and in



Fig. 8: Radiogram of stricture before operation. Case No. 1.

September, 1936, this was handled surgically. In November, 1936, two months after the fistula operation, no induration was felt. The lumen was about normal and it was felt that the result was amazing. X-ray examination showed less narrowing than at previous examinations. She was examined from time to time and rechecked by X-ray. The examinations showed that she remained well, she gained 20 pounds in weight, and the X-ray examinations showed a progressive improvement in the condition, so that on March 24, 1938 (Fig. 9), the roentgenologist made the following report: "Re-examination of the rectum and sigmoid shows the marked constriction and scarring of the bowel which was noted previously to have almost completely disappeared."

Case No. 2: W. H. Male. Black. Age 48 years. Single. First seen October 2, 1931, complaining of anorectal pain and passage of blood, of 10 days' duration, and 20 pounds loss in weight during past 60 days. History of syphilis. Diagnosis of chronic, ulcerative proctitis. At this time there was no stricture present. Conservative and palliative therapy was used, including potassium iodide. The patient failed to show improvement. In July, 1932, nine months after he was first seen, a note was made that the anus was tight, the walls of the anus and lower rectum were nodular and slightly tender and "this case seems destined to become an anorectal stricture of the chronic, inflammatory type." In September, 1933, the condition had progressed so that there was a definite stricture which just admitted the index finger. Frei tests at this time

were strongly positive. The Frei antigen was then administered for therapeutic purposes and it was continued through May, 1934. In January, 1936, the index finger could not be passed, and under anesthesia the stricture was dilated up to and including a No. 8 bougie. Thereafter for a year's time, he received weekly bougies. January 20, 1937, it was felt that no stricture was present, although the lining of the lower bowel showed slight erosions. July, 1938, a Frei test was negative. On March 1, 1939, there was just the slightest degree of inelasticity felt as a band at the anorectal line, but there was absolutely no evidence of ulceration or secretion. In this latter case, it was felt that the only therapeutic measures which might have influenced the course were first the antigenic treatment, and second the dilatations. Inasmuch as no other case showed such spectacular results with the use of Frei antigen but without systematic dilatations, nor with dilatations without Frei antigen, and inasmuch as this case had been followed almost from its incipency, one might suspect that the favorable result might be accounted for by the combination of these three factors, viz., (1) early case; (2) treatment with Frei antigen; (3) dilatations.

SUMMARY

Having studied over a relatively long period of time 100 cases of stricture of the rectum, one feels that a number of general rules of procedure may be laid down in regard to the method of



Fig. 9: Same case 21½ months after first operation.

handling such cases, and the following is the procedure that is recommended.

The first indication is to facilitate bowel function. Toward this end mineral oil orally, one-half ounce, twice a day, is started. If this is not adequate, or if impaction is present, enemas twice daily are necessitated, and at the same time the

mineral oil by mouth is continued. After a period of three days one should be able to dispense with enemas, for in this time in the absence of very marked mechanical obstruction retained fecal material should have been eliminated.

In the event mineral oil is not adequate for bowel elimination because of the narrowing of the caliber of the rectum, gentle graded dilatations with bougies are begun, starting with a size that is distinctly smaller than necessary and inserting successive sizes—without skipping any sizes—until the bougie is reached which will snugly fit past the stricture. The last bougie is allowed to remain in situ 10 minutes to a half hour. This procedure is repeated once a week over a period of a year or two.

If the patient is extremely sensitive to rectal manipulation, or is uncooperative, or if the urgency of the case requires prompt action, then in place of using graded dilatations without anesthesia, the same procedure is done under an anesthetic.

Para-anorectal incisions, as first suggested by Jelks, is advised before colostomy is undertaken, with the hope of obviating an artificial anus.

Colostomy, in so far as bowel function is concerned, is reserved for those cases which fail to respond to other measures, and for those patients who fail to gain in weight and strength, and also when there is a definite obstruction and when it is felt that no time can be lost by using procedures which produce their effects more slowly.

In all cases antigenic measures are employed from the outset. A Frei test is performed initially, and if positive, the Frei antigen is used intradermally, four intradermal injections of 0.06 to 0.1 cc. being employed for each injection. This is repeated twice a week. After six to twelve such injections only one intradermal injection at a time is used, and this is continued once or twice a week over a period preferably of two years. When specific antigen is not available, nonspecific protein therapy is advised.

For pain, particularly of the so-called rheumatic type, 5 grs. of phenacetin three or four times daily is administered. Simple peppermint water is administered to those patients who complain of nausea.

Ten per cent nearsphenamine in glycerin is applied to superficial excoriations about the anus and vulva. It is also advised as a local application to bleeding points in the mucous membrane of a colostomy.

As had been mentioned previously, when despite the use of antigen, dilatations, mineral oil, enemas, and the Jelks operation, there is a persistence of obstruction, pain, excessive bleeding, loss of weight and strength, a colostomy without or with resection of the infected part should be performed. As a result of this procedure one

may expect in most instances very marked improvement in all the symptoms which had been due to the stricture. It should be stressed, however, that one should not wait until the patient is moribund before the colostomy is performed.

Doctors Bldg.

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Pneumonia in Childhood

In some cases the severity of infection and the presence of complications may be too great at the time the serum is given. The presence of empyema greatly lessens the influence of serum, no doubt because its presence is evidence of an overwhelming infection early in the disease. If there has been a mistake in typing, naturally one would not expect valuable results from serum and we find patients who probably, because of the overwhelming nature of their infection, react poorly as far as their hematologic response is concerned and exhibit a leukopenia throughout the infection and a high mortality rate. The late usage with insufficient dosage is also a common fault. The rate occurrence of severe allergic manifestations may at times necessitate stopping the use of serum.

Giving too little serum is folly and wastes not only life but serum. We must not adhere strictly to the common idea that serum does no good after the first three days because it may do good at any time, particularly if a bacteremia is still present. The longer one waits in giving serum, the greater the expense to the patient because the greater amount of serum will be required. There is only about one chance in three hundred for a severe serum reaction, and one in four for death without.

Recently commercial companies have begun the production of rabbit serum for the treatment of pneumonia. The chief advantage of the rabbit serum is that it is cheaper than horse serum and a high titer can be obtained, especially for type III and for types against which it has been impossible to prepare potent horse sera. The chief objection to it seems to be that chills occur with considerable frequency after its use. It has been found that giving patients aspirin just before the serum is administered will frequently lessen the severity and duration of the chill.—Walter M. Whitaker, M.D., Quincy, Ill.; *Jour. Mo. State Med Assn.*, Vol. 37, No. 2, February, 1940.

Renal Infarct

Report of a Case

A. D. VOGELSANG, M.D.

UNDER renal infarct one finds very few cases reported in the literature. Diagnosis is neglected and when such diagnosis is made it is not verified by operation or autopsy. It is only in recent years that cases have been reported with their symptomology and laboratory data so that these findings could be correlated. It is apparent that there are some chemical and laboratory data which are similar.

ETIOLOGY

The most common causes of renal infarct as is generally understood are extrinsic, or to state it in other terms, as Barney and Mintz¹ have reported, nearly all cases were found to have "acute or chronic heart disease, many with decompensation, others with arterio-sclerosis." Ellwyn² states it has a limited etiology, namely, sub-acute bacterial endocarditis. Hinman³ adds bacteremia of an infectious fever as pneumonia, extension of thrombophlebitis of vena cava or more distant veins. A tumor may produce a thrombosis by pressure on a vein. Thrombo-angiitis-obliterans, peri-arteritis-nodosa and dislodged tumor masses may act as emboli. Recently Liberthal⁴ has described the process of tuberculous renal infarct, with a very definite pathological picture.

However, renal infarcts may be caused by precipitation of substances normally or abnormally found in the circulating blood. The pathology found here certainly is a factor in producing arterial and venous occlusion within the kidney with a resultant infarct. The pathology may be different than that of renal infarct but it may be important to mention the various types.

Reiman-Kaufman's⁵ pathology describes the following: "The kidneys acting as purifying agent of the blood are the seat of deposition of substances which are either present as solid bodies in the blood stream, or frequently as dissolved substances precipitated after reaching the kidneys. These substances are in part normal excretory products which for some reason are precipitated, i.e., the uric acid deposits in dead epithelium." Under this type of classification of infarcts are described uric acid, blood pigment, bile pigment, calcium and fat infarcts.

The subject of Renal Infarct was brought to my attention very dramatically a short time ago when I attended a young woman in apparent good health; the initial symptoms were not un-

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usual or alarming but became progressively severe; it presented a clinical picture which later was unusual and ended tragically within four days from onset.

CASE HISTORY

Chief Complaints—(1) Pain in right side of abdomen. (2) Within 12 hours sudden onset of pain in right costovertebral angle and right flank.

Onset and Course—The patient stated that for about one and one-half to two months she had been having intermittent pains in the right side of her abdomen at about the level of the umbilicus and lower right quadrant. At times the pains were very severe and at other times just a constant ache. There were no apparent causes for the exacerbations. The pain usually remained localized to one of the two above mentioned areas and did not radiate to her back downward or toward her shoulder. She also stated she was easily fatigued.

Last Illness—The patient had been attending a cinema on the evening of December 13th when she began to have some pain in the right side of the abdomen. About four hours later, at 1:30 in the morning, a physician was called for the first time. After careful examination a tentative diagnosis of renal colic was made and an opiate was given with complete relief. I saw the patient 12 hours later at 1:00 o'clock in the afternoon. Examination at this time revealed a moderate tenderness in the right costo-vertebral angle and the right side of the abdomen and over McBurney's point. The heart and lungs were apparently normal and the temperature was normal. Because of the pain in the right lower quadrant the patient was advised to go to a hospital for observation.

Past History—There was no history of acute infection or rheumatism. She was 19 years of age

Submitted October 2, 1939.

CHART I

	CASE	AGE	PREVIOUS RECORD	PAIN BACK LOIN ABDOMEN	RIGIDITY	TEMPERATURE	NAUSEA AND VOMITING	CHILLS	PNEUMONIA	BLOOD			URINE			OPERATION	X RAY KIDNEY	KIDNEY INFARCT	AUTOPSY
										WBC	RBC	BLOOD CULTURE	WBC	RFC	CASTS				
(1)	I	31	Phlebitis	x	x	99	o	o	x	28,600	3M	Strep Virid	x	x	-	Biop Neph	No Stone	Entire	x
(1)	II	29	Lung Infection	x	x	104	1	x	x	22,800	-	-	x	x	-	x	-	Entire	x
(1)	III	35	Weakness & Dyspnea	o	o	Gangrene of legs			x	-	-	Strep	x	x	-	o	-	R-1/5 L-all	x
	IV	19 My Case	Tired and Weak	x	x	x	-	-	x	15,000 21,500	4M	o	x	x	x	o	No Stone	Two Areas	x
(6)	V	54	Attack 2 years previous	x	x	98.8	o	-	3 mos. later	17,800	5M	-	o	o	Tr. alb	Neph	-	Cortex	x

(1) Barney & Mintz, reported case histories.

(6) Sailhof, Am. Jour. Surgery, Nov., 1933, 227-228.

Key to symbols:

(x) positive; (-) not reported; (o) negative.

The above chart is an anyalsis of four other cases including my own with sufficient history and laboratory data to show some comparison between all. All had autopsy reports.

and unmarried. Her last menses had occurred November 20th.

December 14th at 3 o'clock in the afternoon the patient walked into the hospital and was put to bed. Her temperature was 99.2 degrees, her pulse 80, the respiration 20.

An emergency WBC was 15,000, Polys 77 per cent, Lymph. 14 per cent, Monocytes 5 per cent, Eosin. 1 per cent.

Catheterized specimen of urine revealed: Color-light amber, Reaction-Acid, Specific gravity, 1031; Albumin, four plus; Sugar, Acetone and Diacetic Acid negative; Microscopic, a few epithelial cells, a few pus cells, occasional red blood cell, frequent granular and occasional pus cast.

An hour and twenty minutes after the patient complained of severe pain in the right side of the back and abdomen. Morphine and atrophine were given. There was no nausea or vomiting.

December 15th the pain became severe at 4 o'clock in the morning and morphine and atrophine were given. There was a rigidity of flank muscles and the right renal region was very tender. There was no pain over McBurney's point. Because of the type of pain and the temperature, which rose to 101 degrees, a cystoscopy was advised and a retaining catheter was passed to the right renal pelvis. The urine in the bladder was "smoky" and hemorrhagic in appearance, as was the urine which was spurted from the right uretral orifice. The bladder was normal. Right kidney urine revealed seven to eight pus cells per low powered field and an

occasional light granular cast. The pain was not relieved following this procedure and morphine was given as before. There was nausea and some vomiting.

December 16th a pyleogram was made and the retaining ureteral catheter was removed in the afternoon. The patient seemed to be slightly improved. A diagnosis of infarct was made at this time as stone pyelitis and uretral obstruction had been definitely ruled out.

Physical Examination (significant findings only)

—Heart, presystolic murmur; heart aortic region apex beat 5 i.c.s., blood pressure 108/78, lungs, left normal; right, occasional moist rale heard in base, anteriorly.

Abdomen—no masses, slight rigidity in right half of abdomen.

On this day, December 16th, the white blood count was 21,550, the red blood count was 4,420,000, shilling 13 per cent. The differential was the same as upon previous examination. It was decided that a blood transfusion would benefit the patient and 500 cc. of whole blood were given. The condition of the patient became steadily and progressively worse, there was labored respiration, cardiac embarrassment and beginning cyanosis and chest findings.

December 17th a chest plate was taken at the bedside which revealed the following: marked increase of density throughout the lower two thirds of the left chest. There appeared to be some shift of the heart and mediastium. However, this was not definite, because of the scoliosis

present and the imperfect positioning on the film. This had the appearance of an atelectasis. The right lung fields were relatively clear, except for some slight increase of density about the hilus region.

December 17th at 2 o'clock in the morning the patient was in surgical shock, there was some

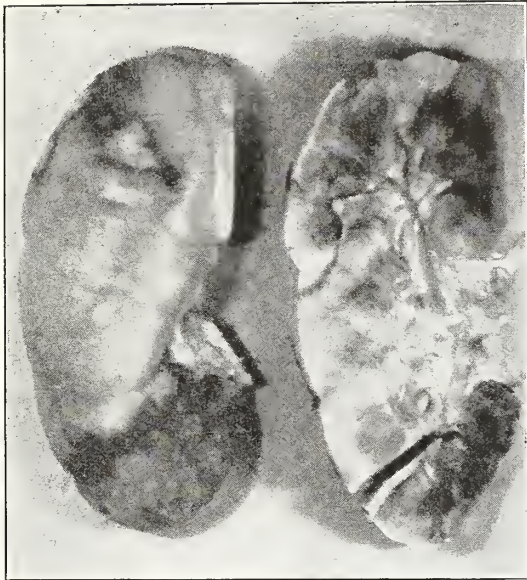


Fig. 1

cyanosis, the pulse was rapid and thready and the abdominal muscles were flaccid, but the patient still complained of pain in the right costo-vertebral region. The blood pressure was 74/50.

The blood culture showed no growth after 24, 48 or 72 hours or after six days.

The patient expired at 10:45 o'clock in the evening of December 17th.

Autopsy—Chronic cholecystitis with stone, diffuse hepatitis with sclerosis, chronic passive congestion, hemorrhage and atrophy. Hemorrhage congestion of spleen. Atrophy of adrenals. Kidney showed two pyramidal areas with hemorrhagic infarction, also diffuse nephritis. Atrophic gastritis. Bilateral lobar pneumonia, stage of white hepatization. Myocardial damage from chronic infection.

DIFFERENTIAL DIAGNOSIS

The above symptoms and history present a very definite urological picture. However, before making any definite urological diagnosis other medical and surgical conditions must be ruled out.

1. Appendicitis.
2. Chest pathology-diaphragmatic abscess.
3. Gall bladder and liver disease.
4. Possible pelvic and tubal ovarian pathology.
5. Retroperitoneal adenopathy and infection.

6. Urological pathology.

- (a) Pyelitis
- (b) Stone and infection-tuberculosis-tumor.
- (c) Ureteral obstruction, stone and kink with infection.
- (d) Perinephritis abscess.
- (e) Renal torsion-perirenal hematoma-acute pyelonephritis.
- (f) Embolic glomerular nephritis and infarct.

Herein is reported a case of renal infarct with an analysis of four other cases reported in the literature previously.

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Peptic Ulcer

The etiology of peptic ulcer is unknown. Therapy, therefore, is empirical. The logical treatment based on physiologic fundamentals is some form of sedative antacid-dietary regimen. Although results are satisfactory treatment is prolonged and the diet monotonous. Largely because of this, an attempt was made to develop more specific, rapid, and less dreary methods of treatment. Toward this end numerous substances, vaccines, chemicals, salts, hormones, amino acids and proteins were administered to ulcer patients by devious injection techniques.

Specificity, wholly or in part, for the individual product, was claimed by most authors to explain symptomatic improvement or cure in at least 70 per cent of their cases. Histidine hydrochloride, an amino acid, received great acclaim as a specific method of therapy for ulcer when first introduced (1934). Recent reports show little experimental or clinical evidence to substantiate histidine as a specific in the treatment of peptic ulcer.

A group of particularly refractory patients with severe ulcer pain were treated with protein (Activin) administered intra- and sub-cutaneously every two days for 10 injections. Other medication was withheld and a general diet was advised during injection treatment. In this small group of especially severe cases, 84 per cent became symptom free during parenteral treatment; 81 per cent of these suffered recurrences when injections were discontinued. Parenteral protein therapy appeared to desensitize our patients against ulcer pain. It did not reduce gastric acidity and apparently did not stimulate healing of the ulcer.—Emil Granet, M.D., New York; Review of Gastroenterology, Vol. 7, No. 1, January-February, 1940.

Thrombo-Angiitis Obliterans

FAY A. LeFEVRE, M.D.

DESPITE the fact that thrombo-angiitis obliterans has been known as a distinct clinical entity for more than 30 years, it is still overlooked or not recognized in its early stages, in a large proportion of instances. Although the incidence of thrombo-angiitis obliterans is small, the consequences to its victims of lack of appropriate protection and therapy are so dire that the physician should be alert to its potential dangers in any case in which its presence may even be suspected.

A typical story is that the patient consulted a physician because of fatigue and intermittent pain in the arch of the foot or the calf, which was mistakenly attributed to fallen arches, and treated by supports, bandages and orthopedic shoes of various kinds; or that pain and redness in a toe were mistaken for an infectious process, and treated by hot packs, chemical disinfectants or surgery. All too often these measures have but increased the patient's difficulties and added to the dangers by producing conditions leading to gangrene, the consequence that all treatment should be designed to prevent.

Barker¹ has reported that in 171 cases of gangrene in thrombo-angiitis obliterans, this complication followed ill-advised therapeutic procedures in 60 instances, or 35 per cent. Such an appalling record indicates all too clearly the necessity for a better understanding on the part of physicians of the serious problems involved in the care of patients with thrombo-angiitis obliterans.

GENERAL CONSIDERATIONS

There are three main types of peripheral vascular disease, displaying (1) organic, (2) spastic, and (3) combined organic and spastic changes. Thrombo-angiitis obliterans falls in the last group. Arterio-sclerosis obliterans is a pure organic disease, and Raynaud's disease is purely spastic.

Age—As a general rule, thrombo-angiitis obliterans may be said to be a disease affecting young individuals, but the age in reported cases ranges from the first to the eighth decade of life. Brown and Allen² reported that the greatest number of their patients were between 30 and 40 years of age. Well advanced cases often are observed in patients in their early twenties, and occasional cases have been reported in children under ten years of age. In a patient aged more than 50 years, great caution should be exercised

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in making the diagnosis, to rule out the presence of vascular occlusion due to arteriosclerosis.

Sex—Although previously it was thought that thrombo-angiitis obliterans occurred exclusively in males, occasional cases have been reported in women. The number of the latter seems to be increasing in recent reports, and this incidence may be related to smoking. In a series of nearly a thousand cases, Horton³ reported 98 per cent in men. The cause for the marked preponderance of this disease in the male is not clearly understood.

Race—Earlier reports on thrombo-angiitis obliterans seemed to indicate that it was largely confined to members of the Jewish race, but this has been disapproved. Although from published statistics it appears that the members of the Jewish race are somewhat more susceptible to this disease than others, the proportion of cases reported in Gentiles is constantly increasing. This is probably because formerly the disease was scarcely ever suspected unless the patient were Hebrew, and consequently many cases probably were overlooked. In Horton's series, 27 per cent were Jews and 72 per cent were Gentiles.

Etiologic Factors—Although it has been proved that smoking is not, as was previously thought, a definite cause of the disease, this still appears to be more than a coincidental factor in the etiology, since an overwhelming number of persons afflicted with thrombo-angiitis obliterans are heavy smokers. In Horton's series, 93 per cent of the patients were cigarette smokers, and 66 per cent might be said to smoke excessively.

The many attempts to isolate a specific organism as the causative agent in thrombo-angiitis obliterans have consistently proved fruitless. The nature of the process tends, nevertheless, to suggest the presence of an infectious element. Despite the extensive studies that have been

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made of thrombo-angiitis obliterans, there is at present no definite knowledge as to its cause.

CLINICAL COURSE

A large majority of patients suffering from thrombo-angiitis obliterans follow a fairly uniform clinical course. If the signs and symptoms are interpreted correctly, the diagnosis should not be difficult. The three cardinal symptoms of thrombo-angiitis obliterans are leg fatigue, intermittent claudication and recurrent superficial phlebitis. Approximately five years usually elapse from the early symptoms of leg fatigue to the onset of trophic changes, although the clinical course may vary greatly, from one to ten years.

Fatigue—Fatigue is usually the earliest symptom and may occur years before the appearance of signs indicating an advanced stage of the disease. This fatigue is limited almost entirely to the lower extremities, and is usually unilateral, intermittent, and always relieved by rest. In some instances, it may affect the anterior or posterior muscle groups and occasionally the arch of the foot, ankle or heel.

Intermittent Claudication—By far the commonest symptom of thrombo-angiitis obliterans is intermittent claudication, and this is the symptom which eventually brings the patient to the physician, though unfortunately, only after the patient has tried various forms of arch supports and special shoes for a period of months or years. The intermittent pain is sensory evidence of a muscular anoxemia, and by the time this symptom has developed, extensive vascular damage has taken place. It is a sharp, cramp-like pain usually situated in the calf or foot. Occasionally it is localized in one of the digits. Although the vessels of both legs are affected, the pain usually is unilateral. The pain is initiated by exercise; at first the patient may notice it only after walking long distances, but as the disease progresses, the walking pain increases. Finally the patient is able to walk but a short distance without leg pain. True intermittent claudication is always relieved by rest.

Rest Pain—After the patient has suffered from intermittent claudication for two or three years, a new form of pain appears which is entirely distinct from the pain of claudication. This pain is extremely severe, localized in the peripheral areas, and is present even when the patient is at rest. Soon after the onset of the rest pain, trophic changes are evident. Ulceration and gangrene may be hastened at this stage by removal of a toe nail or other minor surgical procedures thoughtlessly undertaken to relieve the pain.

Superficial Phlebitis—About 50 per cent of patients suffering with thrombo-angiitis obliterans give a definite history of superficial migrating

phlebitis, although this frequently is overlooked as an early sign of the disease. This affection of the veins may precede the arterial damage by many years. Spontaneous superficial phlebitis, especially in the male, must not be considered an entity until study and long observation rule out the presence of early thrombo-angiitis obliterans.

Temperature Changes—Coldness of the extremities is a common symptom of thrombo-angiitis obliterans which usually appears early in its course. Patients frequently state that they have always suffered from cold feet. This complaint may be present even during warm weather and is always more severe in winter. Numbness and tingling may accompany the coldness. Extreme degrees of coldness of the feet may indicate the presence of a marked neurocirculatory, or spastic element.

Color Changes—Changes in the color of the extremities may have been noticed by the patient long before he seeks medical help. Even before the onset of pain, a slight rubor and cyanosis may be observed, when the limbs are in the dependent position. As the disease advances, the color changes become more marked. The presence of definite rubor and cyanosis in the dependent position with marked pallor on elevation, indicates definitely the presence of arterial obstruction.

Edema—Edema of the lower extremities may occur if the progress of the disease is rapid, and if the rest pain is severe. It usually follows prolonged dependent posture, and is a sign of obstruction of the deep veins. If the edema is accompanied by severe rest pain, the prognosis is poor. Edema of the upper extremities rarely occurs.

DIAGNOSIS

If the patient relates a history of any of the symptoms or signs just described, the presence of obstructive arterial disease should be suspected. A careful examination of the extremities yields additional information which should establish the diagnosis.

Color—On inspecting the extremities, the color should be noted in the horizontal, elevated, and dependent positions. The circulatory efficiency test gives considerable information as to the state of the circulation. This test consists of elevating the legs at right angles to the surface of the bed for three to five minutes. At the end of this time, the pallor usually is complete. The legs should then be slowly lowered, and the level at which the normal pink color returns should be noted. The feet then should be placed in the dependent position and the rapidity and extent of rubor noted. The degree of color change is helpful in estimating the extent of arterial damage. The rubor usually is bilateral, but may be more marked on one side than the other. In the

normal person, the color is maintained on elevation, and there is only slight redness in the dependent position.

Temperature—The surface temperature of the extremities should be estimated, for it is a simple matter to determine by palpation whether or not there is abnormal coldness.

Pulsation—The peripheral pulses should be palpated; the presence or absence of the dorsalis pedis, posterior tibial, popliteal and femoral pulses should be noted. The pulses of the arms should also be palpated. With practice, it is a quite simple matter to determine the degree of pulsation.

Veins—The veins should be palpated especially to determine the presence or absence of areas of superficial phlebitis.

Trophic Manifestations—Careful inspection of the extremities also reveals the presence of minor trophic changes. The nails often are dry and show very little evidence of new growth. Hair normally present over the toes may be absent. Muscular atrophy is often evident.

Special Tests—Mechanical aids are not necessary in order to make a diagnosis of thrombo-angiitis obliterans, although they may be helpful in doubtful cases. In such instances, special oscillometric and temperature studies should be carried out, but these can be made only in clinics equipped for such investigations. These studies play a more important part in the evaluation of treatment than they do in making the original diagnosis.

TREATMENT

Satisfactory treatment of a patient with thrombo-angiitis obliterans can be administered only when the disease is diagnosed early in its course, and when the patient is educated properly regarding the nature of his disease and the precautions necessary to prevent disastrous sequelae. Horton³ has stated: "It is just as important to educate the patient who has thrombo-angiitis obliterans regarding the nature of his disease, as to instruct the patient who has diabetes regarding his diet." The patient should be made to understand the nature of the circulatory deficiency and to realize that, because of this, his tolerance to infections and injuries is much less than that of the person with normal circulation.

If the presence of thrombo-angiitis obliterans is suspected, it is advisable to place the patient in the hospital immediately in order to study his case completely, to instruct him regarding his general care, and to initiate the proper treatment, without delay. While all this is being accomplished, the patient benefits by complete rest in bed in the hospital.

A careful and complete physical examination

should be made, with adequate studies of the blood. Occasionally this will reveal a positive serologic reaction, or an elevation of blood sugar. Special tests also are made to establish the diagnosis and to determine the degree of vascular damage.

Protection from Cold—Instructions to the patient should stress the importance of keeping the feet warm. Warm protective clothing should be worn and exposure to cold should be avoided. In the hospital a thermostatically controlled cradle in which the temperature is maintained between 96 and 98 degrees Fahrenheit, is used to keep the feet and legs warm. At this temperature there is no danger of burning the skin. Hot water bottles and heating pads should never be used, because they may produce severe burns which fail to heal, and lead to gangrene.

Care of the Feet—The patient should use great care in selecting properly fitted shoes. New shoes should be worn only for short periods of time, until they are completely comfortable. The feet should be washed daily with warm water and soap and should be dried thoroughly. An application of 50 per cent alcohol can be made occasionally. Vaseline should be then be rubbed in gently, especially if the skin is dry. The common local disinfectants should never be used.

Patients with thrombo-angiitis obliterans are warned to exert extreme caution to avoid injuries to the legs and feet. Slight abrasions, blisters and burns should be carefully treated, and minor surgical procedures should be avoided. The removal of ingrown toe nails, corns, callouses, and bunions is dangerous, and frequently leads to gangrene which necessitates a major amputation. Toe nails should be cut with care. It is better to soak them in warm water before cutting, and then cut them straight across.

Smoking—It is of the utmost importance that patients suffering from this disease should stop smoking at once. Although smoking may not be the cause of the disease, it plays the greatest part in recovery. Regardless of the type of treatment used, I have never seen a patient who has continued to smoke display improvement. The condition of many patients improves without treatment, if smoking is discontinued.

Typhoid Vaccine—During the last few years, various forms of medical treatment have been tested in the Vascular Clinic at St. Luke's Hospital. The use of typhoid vaccine intravenously has yielded more satisfactory results than any other form of treatment. Small doses of typhoid vaccine, varying between five and twenty million bacteria, are administered by intravenous injection. With this dosage, a mild elevation of temperature results, usually not higher than 2 degrees Fahrenheit. The fever appears several

hours after injection, and may last six to eight hours. During this time, rather marked vasodilatation of the extremities is evident. The injection is repeated after the temperature has been normal for 24 hours. Usually five or six injections are administered, and the patient is allowed to rest for two weeks, and then the course is repeated. A slight fever apparently is of greater therapeutic value than a greater increase in body temperature. After the first course of injections of typhoid vaccine administered in the hospital, it is possible for the patient to remain ambulatory throughout subsequent courses. After receiving the injection, the patient returns home and checks his own temperature. During the period of fever, he is, of course, advised to remain in bed.

This type of treatment does not benefit all patients suffering from thrombo-angiitis obliterans. The patients who have rest pain and early trophic changes give the best response. The patient presenting simple intermittent claudication receives less benefit, but the effects of the typhoid vaccine may help to check the progress of the disease. If there is well advanced ulceration and gangrene, some form of surgery must be used. It is possible, however, to use the vaccine until the type of operation is decided upon.

Other Medical Measures—Many other types of medical treatment have been used in the treatment of thrombo-angiitis obliterans, and it is impossible here to discuss each one in detail. Hypertonic sodium chloride solution administered intravenously has been in use for several years, but in our experience has not yielded as satisfactory results as typhoid vaccine.

Occasionally one of the tissue extracts is of help in relieving pain. Acetyl beta methyl choline (mecholy) used by the method of iontophoresis has also been recommended.

Sulfanilamide—Recently sulfanilamide has been tried in our clinic on three patients with thrombo-angiitis obliterans, who previously had received various types of treatment, including typhoid vaccine, without making a satisfactory response. Two of these patients have exhibited definite improvement, with relief of pain and the healing of ulceration of the toes. The third patient has shown no response to date. This type of treatment has not been used extensively and many more cases will have to be treated before its value in thrombo-angiitis obliterans can be determined.

Exercises and Physical Therapy—The postural exercises originally described by Buerger⁴ should be used routinely in the treatment of patients with thrombo-angiitis obliterans. The patient is trained to do these exercises in the hospital twice daily for an hour at a time, and he is instructed to continue them at home. They consist

of alternately elevating the feet at an angle of 60 degrees for three minutes, then allowing them to hang over the bed for three minutes, and finally resting for three minutes, when the process is repeated.

The positive and negative pressure apparatus has been used widely for the treatment of peripheral vascular diseases. However, its use in thrombo-angiitis obliterans, especially in cases with definite vasospasm, has not been satisfactory. In selected cases, it may be helpful as an adjuvant. More recently, the apparatus producing intermittent venous occlusion has been recommended. Our results with this appliance have not been more satisfactory than with the positive and negative pressure apparatus. The use of a blood pressure cuff pumped up above diastolic level for regular periods of two to three minutes, and then released, has occasionally been helpful, and is a simple method of producing intermittent venous occlusion.

Sympathetic Ganglionectomy—Sympathetic ganglionectomy is a surgical procedure of merit in properly selected cases. This operation does not cure the disease, and probably does not alter its course in the blood vessels. In cases presenting a definite spastic element, it does, however, allow the maximal blood flow. In selecting cases for this operation, the degree of spasm may be determined by temperature studies on the extremities before and after typhoid injections or spinal anesthesia.

SUMMARY

Thrombo-angiitis obliterans is a malignant disease process, resulting in extensive damage to the arteries and veins of the extremities, especially of the feet and legs. The disease usually affects men between the ages of 25 and 45 years, and is not confined to any racial group, although Jews are more susceptible to it.

The making of a diagnosis of thrombo-angiitis obliterans early in the course of the disease is one of the most important factors in its successful treatment. Only when the patient understands thoroughly, through proper instruction, the nature of his difficulties, can he cooperate in protecting himself from the dangers that may so easily lead to the dire complication of gangrene, which, in turn, may necessitate the loss of a limb by amputation.

The clinical course and diagnostic methods have been discussed.

The administration of typhoid vaccine intravenously is suggested as a satisfactory form of medical treatment. This should be accompanied by postural exercises, appropriate physical therapy, and proper general measures, especially discontinuing the use of tobacco. The results to be obtained by the administration of certain endocrine products and of sulfanilamide seem

promising in certain cases, but the definite value of these drugs needs yet to be determined by additional use in a large series of cases. Sympathetic ganglionectomy is advantageous in selected cases, especially those with marked spastic symptoms. Amputation should be resorted to only when all other possible methods of attack have failed completely.

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Lordosis

The term lordosis applies to an exaggeration of the physiological curve in the lumbar and lower dorsal area with the posterior concavity. The summit of this curvature corresponds to the 4th lumbar while its beginning is at the 11th dorsal and termination at the sacrum. The disks become wedge-shaped with the base anterior while the posterior arches and spinous processes are drawn together so that in some instances fusion occurs.

A group of cases are due to muscular causes such as insufficiency of either the muscles of the buttocks or the extensor or the flexor muscles of the spine. Psoas retraction from psoasitis or congenital dislocation of the hip tilt the pelvis forward and by traction on the lumbar region produce lordosis. Congenital dislocation of the hip is a frequent cause, as with the lack of pelvic equilibrium, the pubic region sinks as the sacral inclination increases. Extensor insufficiency from poliomyelitis and myopathies are causes of lordosis as the subject supports the load of the trunk by the tension of the abdominal muscles since they cannot exercise the necessary force in front to push back the spine. The line of gravity is in the rear of the promontory and the pelvis is in extreme extension on the femur.

This type of curvature is often associated with obesity and glandular deficiency. In addition, it occurs in those with insufficiency of the abdominal wall such as is found in multiparous women and hypotonic adults. There is a diminution of stature manifested by the great cutaneous folds in persons possessing obesity. This fold extends between the iliac rests and the rib fossae. The abdomen projects, the pelvis tips in front, and there is a prominent region about the umbilicus. There is insufficiency of the abdominal wall especially in the white line and there is often a

hernia between the upright muscles. The flexion of the trunk is particularly difficult and in late cases, there is a vertebral stiffness. In the normal individual with flexion, the depression is raised up over the spinal column so that the spinous processes are at the level of the lateral muscular projections. With exaggerated flexion to a 45° angle, the spines are lifted above the muscular plane. There is a disappearance of the projection of the spines and a marked crease in the median line, forming a deep furrow between the lateral masses of muscles. To keep in equilibrium, the head is carried in front and this necessary tension of the extensor muscles causes pain in the head and neck. A permanent contracture which causes pain in the cervicodorsal area is the syndrome of painful contracture of the trapezius.

In a fixed lordosis, the lumbar concavity does not disappear in the seated portion, while in the normal individual, the dorsal and lumbar curve combines. Lordosis is often a secondary condition compensatory in nature, and has for its purpose, the maintenance of the erect position of the trunk. It is found in case of muscular weakness or paralysis of the muscles of the back which necessitate, to maintain the equilibrium, a backward inclination of the upper part of the trunk. It occurs as a compensatory measure. This also is true where there is a kypotic projection of the spine above or a spondylolisthesis below. There are certain conditions such as flexion deformity or congenital dislocation of the hip where the erect condition is maintained by throwing the trunk backwards to compensate. Lordosis and a waddling gait are often the first signs noted in congenital dislocation of the hip as by this posture, the trunk is placed in line with the heads of the dislocated femurs to maintain balance.—Henry G. Hadley, M.D., Washington, D. C.

The State of Massachusetts has recently passed legislation which makes it possible to protect its citizens in medical affairs. Hitherto there has been no provision for examining candidates for licenses to practice medicine except by a written test—a method of determining competence considered inadequate by all other states. Now Massachusetts is requiring that those who take the licensing examination must be graduated from approved medical schools.

A board, which has the authority to formulate standards in medical education, has been organized and will pass on the qualifications of schools of medicine. Massachusetts is to be congratulated upon this step which raises the qualifications of its medical practitioners to the general level prevailing throughout the United States.—Editorial, *Jour. of Amer. Med. Assn.*

Turricephaly, Turmschadel, or Oxycephaly With Craniostenosis

S. J. WEBSTER, M.D., and J. E. MORGAN, M.D.

CERTAIN rather uncommon malformations of the skull are characterized clinically by premature obliteration or synostosis of its various sutures. Voluminous literature concerning the subject has appeared in the journals of continental Europe. While some very excellent studies have appeared in American journals,^{1,2,3} the subject has been largely neglected. In the past five years only 11 articles concerning the subject have been printed in English language journals. Six of these were in publications of the British Empire^{4,5,6,7,8,9}. Only five were in journals published in the United States^{10,11,12,13,14} and one of these¹² was by an author from the Netherlands.

Premature synostosis means that one or more sutures or fissures of the skull ossify before their usual time. While these sutures normally ossify at varying times, it is agreed that the sutures of the cranial vault are open far beyond the time for termination of general growth. Most of them are closed by the fortieth year, but the skull of a person 100 years of age has been described with all the sutures open. Premature synostosis may be present at birth, but often makes its appearance later, usually within the first six years.

Virchow was the first to hold that the deformity of the skull in these cases was due to the premature synostosis. While several dissenting voices have recently appeared, this theory has been generally accepted ever since his time. He felt that the irregularity in growth was produced by the fact that the skull could not increase in size in the direction perpendicular to the course of the obliterated suture. This limitation of growth was then compensated for by the skull enlarging more than normally in other directions.

Many theories have been advanced to explain the cause of premature synostosis. Pressure on the edges of the bone either in utero or during labor has been suggested. Racial peculiarity is mentioned. Constitutional diseases, such as syphilis or rachitis, have been blamed. Meningitis, secondarily involving the bone has been considered. All of these have been quite well disproved. Schüller¹⁵ feels that we are probably dealing with a primary disturbance of development affecting only the ossification of the skull. Recently, Ida Mann⁷ has attempted an embryological explanation of the phenomenon. She would classify the deformity as a dysgenic con-

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dition showing itself as a localized arrest of development of the extreme anterior portion of the visceral mesoderm, possibly of atavistic significance. Apert¹⁶ has described the frequent association of congenital deformity of the hands, particularly syndactylism, with oxycephaly.

A multitude of names has grown up describing such deformed skulls. However, from the clinical standpoint, they fall into three fundamental types.

1. Turricephaly, Turmschädel, or oxycephaly, which is the short, broad and abnormally high skull.

2. Scaphocephaly, which is the abnormally long narrow skull.

3. Plagiocephaly, or slanting head, which is the name given the skulls with asymmetrical premature synostosis and hence, asymmetrical deformity.

The important question to the clinician is whether or not these deformities interfere in any way with the normal physiological functions of the body. If, during the period of growth, the compensation in abnormal directions occurs with sufficient rapidity, there results only a striking anomaly in the shape of the skull. Such skulls are interesting to the curator of an anatomic museum, but not to the physician. If, however, skull growth does not keep pace with the growth of the brain, which is increasing normally in size, there results a disproportion known as craniostenosis. Characteristic signs and symptoms now appear, and the condition falls within the province of the clinician.

The brain attempting to expand in a relatively

inelastic bony cage gives rise to chronic increased intracranial pressure. Most of the symptoms reported can be explained on this basis. Convolutional erosion of the inner surface of the skull occurs and may progress to actual perforation. This may be recognized roentgenographically. The orbital fossae often are shallow resulting in varying degrees of exophthalmos. Cerebral symptoms also may appear, and consist of

been sufficiently called to the attention of clinicians in this country.

CASE HISTORY

The patient, a white man, 22 years of age, was first seen in our office on August 12, 1938. He was single, and had been working as an office clerk in a factory. His only subjective symptom was nervousness. He thought that he might have contracted lead poisoning while working in a paint factory. He gave no history of headache, convulsions, nausea or vomiting. He had always enjoyed, what he considered, good health. He considered his vision to be good.

He was a tall, rather spare young man who appeared to be in good health. He wore glasses, but said that his "optometrist" had recently told him he did not need to wear them when his eyes felt all right. The pupils were equal and regular and reacted normally. There was no exophthalmos. The fundi showed definite pallor of the discs, more marked on the temporal sides. There was considerable contracture of the visual fields, using gross methods of examination. The heart, lungs, and abdomen presented no abnormalities. Urine examination showed albumin 0, sugar 0. Blood hemoglobin was 80 per cent (T). Blood pressure was 120/80. Blood Wassermann was negative.

The most striking physical finding was the configuration of the patient's skull (Fig. 1). It was abnormally tall and narrow, appearing almost like a truncated cylinder. The forehead was broad, flat and abnormally high. The anterior posterior diameter of the cranial vault was markedly shortened. The rear of the skull dropped straight down from the occiput parallel to the forehead. There was no occipital protuberance. The patient wore a size 6½ hat. He stated that he had always been self-conscious of the shape of his head, and had always brushed his hair down over the forehead to disguise its abnormal height.

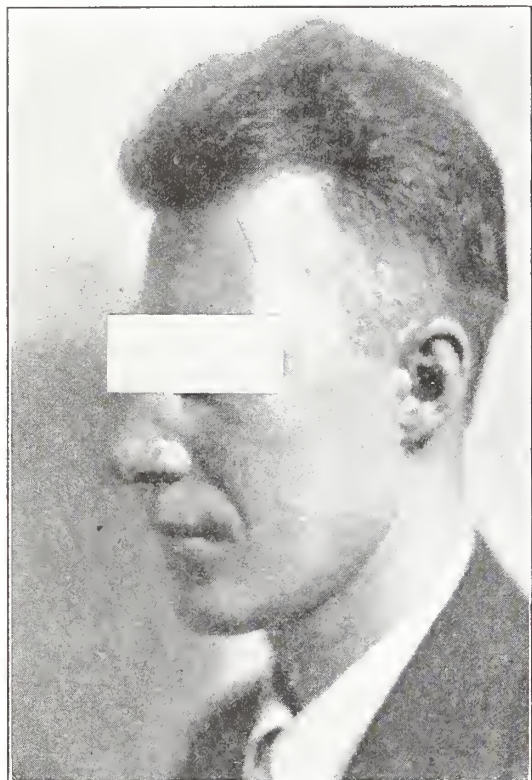


Fig. 1. Photograph showing typical configuration of oxycephaly.

periodic migraine, epileptic attacks, psychic anomalies, irregularities of growth from secondary pituitary dysfunction, and impairment of the special senses, particularly sight. Whether or not the condition may affect the mental capacity of an individual is probably best answered by the fact that the finest series of such deformed skulls reported in the United States is by Bronfenbrenner² working at the New York School for the feeble-minded.

The deformity present in these cases may be so extreme as to be grotesque. On the other hand, minor degrees of deformity may be present and the condition may go unrecognized. The case we are reporting had had, in recent years, industrial, school, and government examinations without any special note being made or clinical significance attached to the peculiar shape of his head. This supports our view that the condition has not

The patient's mother gave the following information. He was her first born, delivered at Maternity Hospital, Cleveland, Ohio. So far as she knew, there was no difficulty in delivery. She maintained that when she first saw the baby after birth, he had the peculiarly shaped head which he still has.

X-ray examination of the skull on August 30, 1938, was reported as follows, by Doctor Harry Hauser.

"Postero-anterior and lateral views of the skull show the calvarium to be the seat of marked architectural abnormalities. The frontal bone shows a decided posterior slope producing a vertical elongation of the cranial vault. The greatest dimension between vertex and base is 17 cm. and the greatest antero-posterior diameter is also 17 cm. Suture lines are absent. Vascular grooves are normally present. The most striking changes in the calvarium are the 'digital impressions' (Figures 2 and 3) present in the frontal bone and in the lower posterior parietal regions. These impressions are the result of chronic increased intracranial pressure. The sella turcica is normal in size. The base of the skull is decreased in its



Fig 2. Lateral roentgenogram of skull. Note general configuration, absence of suture lines and digital impressions in frontal and lower posterior parietal regions.



Fig 3. Anterior roentgenogram of skull. Note digital impressions in frontal area and crease at site of sagittal suture.

antero-posterior diameter, particularly in the region of the anterior fossa."

Ocular consultation by Dr. Wm. Evans Bruner, on September 22, 1938, was reported as follows:

"Vision without glasses was, O.D. 6/15+2; O.S. 6/6 partly. He was wearing, O.D. -75=-25 ax. 180; O.S. -75. With these glasses, the vision of the right eye was 6/12+; left eye 6/6-2. The vision could not be improved by any change of glasses. The pupils were equal and prompt to light. His eyes were in good position under cover including forced convergence; tension normal. Fields were: Right eye, Out 35, In 40, Up 30, Down 40, with marked concentric contraction of all the color field. Left eye, Out 40, In 40, Up 35, Down 40, with similar marked concentric contraction of all the color field.

Ophthalmoscopic examination showed marked optic atrophy, post-neuritic in type, all edges hazy, the nerve very white, and the arteries definitely contracted." A check-up on the fields again after some months to compare them with the present fields, was requested.

DIAGNOSIS

The broad, flat, but abnormally high forehead, short anterior-posterior diameter, and abnormally tall cranial vault definitely placed this patient's skull in the class of turricephaly or Turmschädel. X-ray examination gave striking confirmation. The optic atrophy found is frequently present in this condition, and may progress to blindness.

There are several conditions which must be differentiated. Microcephaly also causes a short

antero-posterior diameter. However, the sutures remain open, and since the brain is also abnormally small, there is no erosion of the inner surfaces of the skull. Increased intracranial pressure due to brain tumor or hydrocephalus may also cause convolutional erosions of the skull. In such cases the sutures are not obliterated, and may even be separated.

DISCUSSION

This patient represents a rather minor degree of this interesting condition. He has been able to take his place in society and live a comparatively normal life. The deformity of his skull is not grotesque, and the eye changes have not been incapacitating.

We believe that many such border line cases are unrecognized as the cause of optic atrophy or cerebral symptoms.

It is interesting that the patient's mother is sure that the abnormal skull shape has been present since birth. As given above, early authors felt that the premature synostosis was stimulated by pressure in utero or during labor. It is now realized that the condition may begin in utero and that the abnormal shape of the head may cause obstetrical complications.

TREATMENT

The rationale of any treatment for this condition must be to increase the size of the cranial

vault in order to give more room for the expanding brain. Several successful results have been reported, following trephination or craniectomy. This particular patient has surprisingly good vision considering the amount of optic atrophy present. He has no cerebral symptoms. He is also at, or near the time for cessation of general growth. At that time, the progress of the condition should cease spontaneously. He will, therefore, be watched carefully, and if the optic atrophy progresses, or if other symptoms appear, craniectomy will be resorted to in an attempt to give relief.

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Malta Fever: A Warning

Today, no one doubts that Malta fever is found throughout the world, and that it is a cause of an appreciable morbidity with a relatively low mortality. But there is good reason to doubt the diagnosis in many cases now being treated as Malta fever.

Keeping the diagnostic criteria and the clinical course well in hand, the physician must remember that the disease may simulate many febrile conditions which are often much more serious than Malta fever. The following serve as examples: tuberculosis, malaria, typhoid fever, influ-

enza, chronic bronchitis, rheumatic fever, pyelitis, bacterial endocarditis, specific orchitis and epididymitis. Not only is it difficult to make a differential clinical diagnosis, but the so-called specific diagnostic methods often leave us in serious doubt. The agglutination test may be positive in normal individuals. Not only may it be positive in those who have never had clinical Malta fever, but it may be positive in those who have had clinical disease with recovery, or in those who have had the specific vaccine whether they have or have not suffered from Malta fever.

Meakins says that blood cultures may be positive in the first week. He also suggests guinea pig inoculations with the patient's blood or excreta, may produce agglutinins in the animal's blood within five weeks, also the development of poly-arthritis and orchitis. The animal may be killed in six to eight weeks and the organisms recovered from the visceral organs.

Discussing the skin test, Meakins says, "Its diagnostic value depends upon the extent of the reaction. Weak or doubtful reactions, if taken seriously, lead to confusion in diagnosis." Obviously it is not safe to accept a positive agglutination test or a skin test as final. Neither is the opsonocytaphagic test to be accepted without question.

It is not only necessary to make an accurate diagnosis of Malta fever before deciding upon a long drawn-out course of therapy, but it is equally important to remember that even though Malta fever is present, there may be associated with it other more serious pathological conditions, such as those mentioned above.

In the light of our present knowledge of therapy, it is much more important to diagnose the latter pathological conditions than the Malta fever. In other words, life and safety seldom hinge upon the prompt recognition and treatment of Malta fever. This cannot be said of tuberculosis, typhoid fever or acute rheumatic fever. It is not uncommon to discover pulmonary tuberculosis which has reached an advanced stage, while the patient, with a sense of false security, awaited the promised cure through the continued use of so-called specific vaccine for Malta fever.

Malta fever, untreated, has a very low mortality and at the present time, it is doubtful if either the morbidity or mortality is materially influenced by treatment. The long list of remedies recommended for this condition immediately raises a serious doubt as to their value. Likewise, it may be said that vaccines and foreign proteins have no proven specificity. Finally, we should not forget that unwarranted therapeutic conclusions may result from the natural remissions in the febrile course of the disease.—Editorial, *Jour. Oklahoma State Med. Assn.*, Vol. XXXIII, No. 1, January, 1940.

Incidence of Auricular Fibrillation in Mitral Stenosis With Congestive Failure

LEO WALZER, M.D.

AURICULAR fibrillation occurs more frequently with mitral valve disease than with any other form of organic heart disease. P. D. White¹ stated that over half of all mitral stenosis cases develop auricular fibrillation. Feil² found auricular fibrillation occurring in 53 per cent of autopsied mitral stenosis patients. DeGraff's³ figures were essentially similar, 50.5 per cent. De La Chappelle⁴ reported an incidence of 40 per cent.

These figures refer to the occurrence of auricular fibrillation in patients with mitral stenosis dying of whatever cause, and do not take into account the presence or absence of congestive failure. Feil found that 81 per cent of his series died in heart failure, but did not state what percentage of these cases had auricular fibrillation. De La Chappelle did not state specifically what proportion of his patients with congestive failure had auricular fibrillation, although he did state that 88 per cent of his 42 cases of fibrillation had congestive failure. DeGraff stated that 45 per cent of patients with auricular fibrillation died of congestive failure. He also stated that 83 per cent of the cases with fibrillation had at least one attack of congestive failure, but he did not restrict his figures to mitral stenosis alone, nor did he give the proportion of cases with fibrillation in the congestive failure group. Davis and Weiss⁵ reported auricular fibrillation in 57 per cent of patients with severe rheumatic heart disease, but they again did not limit their group to include only patients with mitral stenosis and congestive failure.

There is then, some question as to the actual incidence of auricular fibrillation in mitral stenosis with congestive failure. It seemed worthwhile, therefore, to review the records of patients with mitral stenosis and frank congestive failure.

Since clinically, one can never be certain that one is dealing with pure mitral stenosis, and since mitral stenosis is accompanied frequently by aortic disease (28.6 per cent DeGraff) and moderate hypertension, it seemed more practical to report the incidence of auricular fibrillation in cases in which mitral stenosis was the predominant factor, rather than confine this study to pure mitral stenosis. The presence of moderate

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hypertension, systolic blood pressure not exceeding 180, diastolic not over 100, and aortic regurgitation with diastolic blood pressure not lower than 60, did not exclude any case unless in addition there was left ventricular preponderance by electrocardiogram. Berliner⁶ has shown that mitral stenosis by itself never causes left ventricular preponderance. The presence of left ventricular preponderance was taken to mean on this basis, that the disease process complicating mitral stenosis had assumed definite pathological importance. Mitral stenosis apparently uncomplicated, but with left ventricular preponderance was included in this study. Only four cases, 5.8 per cent, of the series studied fell into this group.

Three hundred and nine consecutive records were examined of patients diagnosed as having mitral stenosis, admitted to Lakeside Hospital during the period 1932 to 1938.

Sixty-nine of these patients had definite congestive failure, showing at least two of the following three signs: peripheral edema, pulmonary rales, and hepatic enlargement. These signs were utilized as criteria of congestive failure because all records mentioned their presence or absence, and from the clinical description of these signs, one could visualize to some extent the severity of the failure.

The diagnosis of mitral stenosis was based on the presence of an apical diastolic murmur. In the 17 autopsied cases, post-mortem examination confirmed the clinical diagnosis. DeGraff, in a much larger series found that the accuracy of the clinical diagnosis of mitral stenosis was 95 per cent.

Every patient had had at least one electrocardiogram.

There were 46 females and 23 males in the group, a ratio of two to one.

Thirteen cases showed aortic regurgitant mur-

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From the department of medicine, Western Reserve University and the medical service in Lakeside Hospital, Cleveland, Ohio.

murs, 18 had moderate hypertension within the limits specified above. None of these showed left ventricular preponderance.

Four, 5.8 per cent, of the apparently uncomplicated mitral stenosis patients showed left ventricular preponderance.

TABLE 1

	Total Each Group	Male	Female	Aortic Dis- tolic Murmur	Past History of Rheumatic Fever	Right Ventricular Preponderance	Active Rheu- matic Infection	Suggestive Rheu- matic Infection
10-19 Yrs.								
Normal Rhythm	4	0	4	1	3	2	4	0
Auricular Fibrillation ..	2	1	1	1	2	2	1	0
20-29 Yrs.								
Normal Rhythm	3	1	2	1	1	2	1	1
Auricular Fibrillation ..	3	0	3	1	3	2	2	0
30-39 Yrs.								
Normal Rhythm	4	2	2	0	3	3	1	1
Auricular Fibrillation ..	18	7	11	3	12	11	1	2
40-49 Yrs.								
Normal Rhythm	2	2	0	1	0	2	1	1
Auricular Fibrillation ..	20	6	14	3	12	12	1	0
50-59 Yrs.								
Normal Rhythm	2	0	2	1	2	0	1	1
Auricular Fibrillation ..	9	3	6	1	3	4	0	1
60-69 Yrs.								
Normal Rhythm	0	0	0	0	0	0	0	0
Auricular Fibrillation ..	2	1	1	0	0	0	0	0
	69	23	46	13	41	40	13	7

Forty, 58 per cent, of the group had right ventricular preponderance.

Fifty-four, 78 per cent, of the group had auricular fibrillation; fifteen, 22 per cent, had normal sinus rhythm.

Active rheumatic infection as evidenced by acute arthritis, fever, pre-cordial pain, increased sedimentation rate and leucocytosis was noted in five, 9.3 per cent, of the 54 cases with fibrillation, and eight, 63 per cent, of the 15 with normal rhythm. Nine of these cases came to autopsy, all showed some evidence of active rheumatic carditis as indicated by acute valvulitis, and perivascular cellular infiltrations. Only one of the nine showed typical Aschoff bodies, a rather low incidence, Rothschild⁷ et al reporting the finding of Aschoff bodies in 89 per cent of active carditis.

An additional three cases in the group with

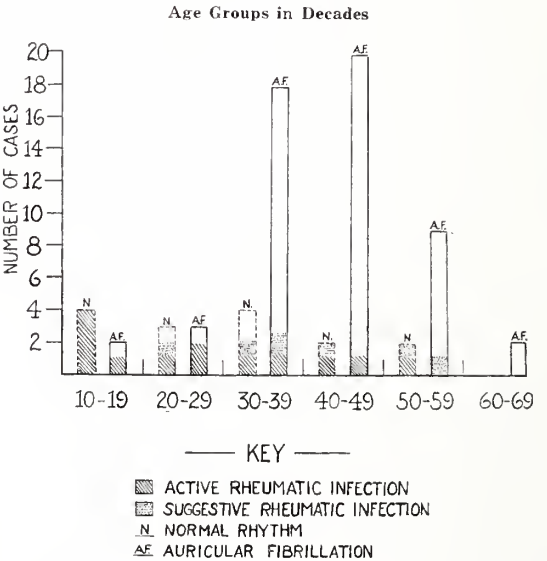
fibrillation and four in the normal rhythm group had suggestive evidence of active rheumatic fever. By suggestive evidence is meant moderate elevation in temperature, or leucocytosis without adequate cause.

Fig. 1 illustrates the age incidence in the two groups, and the proportion in each group with active and suggestive rheumatic infection.

Inspection reveals a sharp increase in the number of cases with auricular fibrillation with increasing age, whereas, the number of cases with normal rhythm does not vary appreciably from age group to age group.

The incidence of rheumatic activity in the two groups shows a striking difference with increasing age. In the fibrillating group the proportion in each age group with active infection drops sharply with increasing age. In the normal rhythm group the four cases in the second decade of life all showed active infection. Thereafter in the older cases, active rheumatic infection continued to be present in a high proportion of cases.

The age distribution of the cases with auricular fibrillation, and those with normal rhythm is worthy of note. Of the group with fibrillation, five of 54, or 9.3 per cent, were under 30 years of age. Of the sinus rhythm group, seven of 15, or 46 per cent, were under 30 years of age. Simi-



larly, eight of the 13 cases with active rheumatic infection, 61 per cent, were under 30 years of age.

Referring to Table 1 it is seen that 41 of the 69 cases studied, or 59 per cent, had a past history of rheumatic infection.

DISCUSSION

The high incidence of auricular fibrillation in this series is a natural consequence of the man-

ner of selection of the cases studied. Both congestive failure and auricular fibrillation are late manifestations of the rheumatic state, and by limiting this series to patients with mitral stenosis accompanied by congestive failure, an end stage of the disease, one might well expect to find a very high percentage of these patients with auricular fibrillation, another end stage of the disease.

The chief exception to the statement that congestive failure is a late manifestation of the rheumatic state is the congestive failure of children and adolescents. Here the congestive failure is part of the picture of the active rheumatic state. Here also the intimate connection between congestive failure and auricular fibrillation is broken. Only 38 per cent of the cases with active rheumatic infection and congestive failure had auricular fibrillation, whereas 88 per cent of the cases without active rheumatic infection, had auricular fibrillation. This is in accordance with reports,^{10,11,12} that auricular fibrillation occurs infrequently during the active stage of rheumatic infection, and is usually a late result of long-standing valvular disease.³

SUMMARY

1. Sixty-nine cases with congestive failure, having mitral stenosis as the predominant cardiac lesion, selected from 309 consecutive patients admitted to Lakeside Hospital with the diagnosis of mitral stenosis, form the basis of this report.

2. Auricular fibrillation occurs with increasing regularity with increase in age, in the congestive failure of mitral stenosis. Seventy-eight per cent of the cases in this series had auricular fibrillation.

3. Auricular fibrillation is to be expected in the congestive failure of mitral stenosis. Its absence warrants an intensive search for evidence of active rheumatic infection. If none is found one should suspect that either mitral stenosis is not present, or if present, is not the important cardiac lesion.

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Convalescence From Pneumonia and Other Severe Infections

Many old people die of acute lobar pneumonia or of acute or subacute bronchopneumonia. Formerly these diseases were responsible for about one-eighth of all deaths among the aged. Dr. Osler used to speak of pneumonia as the "old man's friend," and commenting upon this disease in his famous text-book says: "Taken off by it in an acute, short, not often painful illness, the old escape those 'cold gradations of decay' that make the last stage of all so distressing."

But with the advent of sulfapyridine treatment it now seems probable that pneumonia will be the cause of death in the old less frequently than formerly. But even if a pneumonic infection be overcome by this marvelous new drug, great care must be exercised during the period of convalescence. The heart especially should be guarded from strain either from physical effort or emotional excitement. The patient should not, however, be kept too long in the recumbent position after the temperature has become normal. It is better cautiously to allow sitting up in bed with a back-rest, and later in a chair beside the bed, the physician keeping careful watch of the behavior of the pulse, blood pressure and heart's action.

The diet should be restricted for several days, the fluid intake should not be too large, regular bowel movements should be secured, and restful sleep at night promoted. Later when activities are gradually resumed, precautions similar to those recommended during convalescence from cardiovascular diseases should be observed.—Lewellys F. Barker, M.D., Baltimore, Md.; *Bulletin, New York Acad. of Med.*, Vol. 16, No. 2, February, 1940.

Allergy as a Factor in General Medicine

OSCAR BERGHAUSEN, B.A., M.D.

IN order to determine the value of allergic investigations in general medical practice a detailed study of 300 patients was undertaken in the majority of whom cutaneous tests with a variety of protein extracts were made. At first the scratch method was employed but later the intradermic inoculation of the extract was adopted as routine, care being exercised in those with a positive allergic history. Upon only two occasions were very marked general reactions obtained with the first injections made for diagnostic purposes. The results are tabulated for convenience and for purposes of study to arrive at conclusions which form the basis of this contribution. A careful clinical history was taken to elicit information pertaining to allergic manifestations in the patient, his immediate and remote ancestors. As is well known there is a strong tendency to the inheritance of allergic characteristics.

In this group it will at once be apparent that there was an almost equal distribution between patients suffering from rose and hay fever, bronchial asthma and other forms of vasomotor rhinitis. An even larger number of those suffering from angio-neurotic edema, urticaria, acne and various forms of skin diseases were examined. Next in number were those suffering from various forms of digestive disturbances and headache chiefly of the migrainal type. It is in patients suffering from such clinical manifestations that the greatest amount of information can be derived from a thorough physical examination and the application of allergic cutaneous tests. It is in the proper evaluation of the information gained by making these tests that the physician is guided in determining the proper therapeutic procedures.

Patients suffering from spring catarrh usually react to grass pollen extracts as well as those prepared from the pollen of ragweed and various trees. Clinically they suffer from one group of pollens only and extracts of these are sufficient for therapeutic inoculations. Likewise sufferers from hay fever, bronchial asthma, and other forms of vasomotor rhinitis may react to many extracts, but the physician of experience will select those most likely to bring favorable results through therapeutic inoculation. Frequently it will be found that elimination of certain foods to which a person will react may be desirable should his symptoms be seasonal in character. After the season has passed he may safely include such foods in his daily diet.

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It is in the field of gastro-intestinal allergy that striking results may be obtained by elimination of certain foods to which the patient is sensitive. Cutaneous tests are of value in this field to enable the physician to formulate a proper diet in the beginning of the treatment. In particularly severe cases the well known elimination diet lists may be employed and the

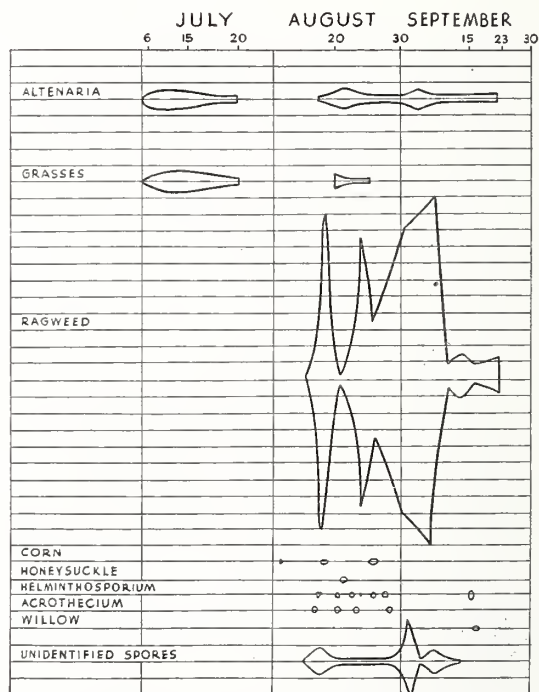


Chart I—Space between each horizontal line equals 20 grains of pollen of number of spores / 1 sq. cm. collected over twenty-four hours. Number / sq. cm. equals amount in a cubic yard of air.

patient guided in adding to this list from time to time. Attention must be directed, however, to the proper vitamin and mineral content. Obscure digestive disturbances including appendicular colic may be corrected in this manner.

Drug idiosyncrasy should be given some con-

* TABLE I

Diagnosis	No.	M.	F.	Age	Food Protein		Pollen Protein		Other Protein		Condition Improved	Condition Same
					Pos.	Neg.	Pos.	Neg.	Pos.	Neg.		
Spring and Autumn Catarrh	54	23	31	6-67	19	6	50	---	---	---	24	13
Bronchial Asthma	56	26	30	5-70	25	25	21	24	17	6	31	---
Vasomotor Rhinitis	49	13	36	6-69	25	14	24	14	16	26	15	34
Urticaria	38	14	24	16-82	21	16	1	9	5	10	21	17
Various Skin Diseases	19	10	9	17-17	12	6	3	5	4	5	11	8
Angio-neurotic Oedema	10	2	8	18-54	8	2	1	2	---	---	10	---
Acne Vulgaris	10	4	6	19-36	6	3	2	---	---	---	6	4
Digestive Diseases	13	7	6	29-64	7	4	---	---	---	---	7	4
Appendicitis	5	3	2	12-42	3	2	---	---	---	---	2	3
Diabetes Mellitus	3	1	2	46-75	---	3	---	---	---	---	3	---
Hypertension	2	1	1	47-56	---	2	---	---	---	---	1	1
Chronic Arthritis	4	1	3	33-58	1	3	---	2	---	---	2	2
Ophthalmic Diseases	8	4	4	15-50	3	3	6	2	---	---	3	5
Acute Rhinitis	2	2	---	---	1	1	---	2	---	---	1	1
Headache	13	4	9	26-60	5	6	---	---	---	---	4	9
Asthenia	4	2	2	44-54	---	4	---	---	---	---	4	---
Senility	2	2	---	70-86	2	---	---	---	---	---	2	---
Miscellaneous	8	2	6	16-68	3	5	---	---	---	---	3	5
Total	300	121	179	---	141	105	108	60	42	47	150	106
					57.3%	42.7%	64.2%	45.8%	47.2%	52.8%		

sideration for patients are in the habit of buying proprietary preparations at the drug store. Phenolphthalein not infrequently may cause severe gastric and hepatic disturbances associated with skin manifestations as erythematous patches, edema and nodules. Likewise the frequent reactions to quinine, aspirin, and coal tar derivatives are well known. One patient presenting the above cutaneous manifestations became acutely ill of symptoms suggesting the presence of cholecytic disease. Inquiry disclosed the fact that she had been in the habit of occasionally taking a cathartic containing phenol-phthalein. Since avoiding this drug such symptoms have not recurred.

During the past summer the hay fever season has been very severe in this vicinity. Pollen studies were made at frequent intervals during July, August, and September by exposing a glass slide coated with vaseline on the window sill of the seventh floor of an office building in the basin of the city. These observations are charted according to the method of Evangeline Bowie¹ who made similar studies in Nashville, Tennessee. It was found that *Altenaria* spores and grass pollens were present throughout the summer, ragweed pollen from the middle of August to the middle of September. This led to the use of the extract prepared from the spores of the *Altenaria* as well as the common pollen extracts in the therapeutic inoculations. Occasionally grass pollens will be the cause of asthmatic symptoms late in September.

CONCLUSIONS

In a study of 300 allergic individuals it was found that 159 or 59 per cent suffered from spring or autumn catarrh, bronchial asthma, or other forms of vasomotor rhinitis. In 77 or 25.6 per cent skin manifestations were the main complaint; 18 or 6 per cent suffered from digestive

disturbances and 13 or 4.3 per cent from a migrainal type of headache.

The clinical history when carefully taken is of the greatest assistance in making a diagnostic or allergic survey, the cutaneous tests frequently enabling the physician to make an etiologic diagnosis.

When the skin is found to react to numerous protein extracts the physician must be guided by his judgment and experience as to which extract to use for therapeutic inoculation.

In Southwestern Ohio an aerobiological survey made during the past summer showed the presence of *Altenaria* spores and pollens from grasses throughout the summer, the pollen from ragweed appearing about the 13th of August and disappearing about the 15th of September.

Apparently the spores of lower forms of vegetation are distributed by the wind in a manner similar to the pollen of higher forms of vegetation.

19 W. Seventh St.

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Several years ago Boothby and his associates at the Mayo Clinic showed that the speed of metabolism gradually lessens with advancing years. It is not surprising, therefore, that hypothyroidism is not uncommon in later life, manifesting itself by lethargy, slowing of thought, a tendency to drowsiness, preternatural susceptibility to cold, dryness of the skin, obesity, and a lowered basal metabolic rate. When it is discovered, enough thyroid substance should be cautiously given to restore the basal metabolic rate to normal levels. Elderly patients with coronary disease or congestive heart failure, however, do not tolerate the use of thyroid substance well, even in small doses.—Lewellys F. Barker, M.D., Baltimore, Md.; Bulletin, New York Acad. of Med., Vol. 16, No. 2, February, 1940.

*I wish to express my indebtedness to Miss Mary B. Clark for technical assistance in the preparation of the chart.

The Biologic Assay of Thyroid Activity

FRANK E. HAMILTON, M.D.

NUMEROUS attempts have been made to determine the degree of activity of the thyroid gland in patients with thyroid disease. The clinical features presented, demonstrable evidence of overactivation or of underactivation, the basal metabolism and more recently the changes in iodine metabolism, have all been considered in efforts to recognize the functional state of the thyroid previous to the institution of medical or surgical therapy.

The patient with **hyperthyroidism** usually presents measureable changes in the circulation and heart rate. The basal metabolism is, as a rule increased. Investigation of the iodine metabolism reveals a greatly increased mobilization of iodine, with high blood and urinary iodine levels. On the other hand, the patient with **hypothyroidism** usually presents a diminished circulation and lessened nervous irritability. The basal metabolism is usually lowered while the iodine metabolism shows a decreased mobilization of iodine, with the blood and urinary iodine at or even below normal.

Thyroidectomy has permitted further analysis of the gland itself, and particularly regarding its iodine content and histopathological picture. Thus the normal iodine content of the human thyroid gland is usually found to be about 40 mg. per cent wet-weight and 200 mg. per cent dry-weight. Moreover, the iodine content is usually decreased in the diffuse hyperplastic gland characteristic of exophthalmic goiter, although variably increased subsequent to the usual preoperative iodination. In regions of iodine deficiency, as in central Ohio, the thyroid iodine is also variably diminished.

The **histology** of the normal gland shows, in general, an even distribution of fairly symmetrical colloid-filled follicles lined with a flat epithelium. The untreated diffuse hyperplastic gland of exophthalmic goiter presents an uneven distribution of variable—large to small—or compressed, irregular, papillated follicles. Usually the follicles contain diminished amounts of vacuolated colloid and are lined with high cuboidal or even with edematous columnar epithelium. Occasionally areas of lymphocytosis and evidences of increased vascularization are seen.

Other attempts at correlating the clinical pic-

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ture with the iodine content of the thyroid tissue and its histopathology have been unsatisfactory, chiefly because of the varying factors that arise following the preoperative administration of iodine. Our own investigations thus far have revealed the necessity of developing some means for determining the biological activity of the removed goiter and its varying parts.

Biological activity in this paper refers to the effect of feeding the thyroid substance to experimental animals. Immature tadpoles have been used for this purpose. The customary experimental animals have been also employed²⁹; however, more conclusive results have been obtained by using a small metamorphosing animal before its own thyroid and pituitary glands have become active. Portions of a thyroid gland whose iodine content and histopathological picture are known are fed to the tadpoles; this permits of a biological assay, thus adding another series of facts to the other methods of function-analysis.

We are attempting thus to demonstrate biological effect and learn of its relationship to the activity of the diseased gland. This may well furnish another series of pertinent observations in our efforts further to unravel the true nature of goiter.

Of major importance to the functioning of the thyroid gland is iodine. This occurs in the form of **thyroxin**, diiodotyrosine and according to some of inorganic iodine. Allen Lein,²⁵ working with Bennet Allen, found that all forms of iodine are biologically active; and that although thyroxin iodine is by far the most active, the other forms of iodine present in the thyroid gland must be taken into consideration in any critical analysis of its biological activity. This is confirmed by Harington, although he believes "that the pres-

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This investigation was aided by a grant from the Comly Fund for Medical and Surgical Research of the Ohio State University.

ence of any iodine compound in the thyroid other than thyroxin and diiodotyrosine is unlikely."²⁹

A review of the literature shows that the biological assay effect is dependent upon the iodine concentration in the thyroid gland. Gubernatsch² in 1912 first reported the biological effects obtained by feeding experimental animals, he used tadpoles, certain glandular tissues, notably thyroid. Feeding experiments were conducted on 20,000 immature tadpoles. They were fed chopped thyroid, adrenal, liver, spleen, hypophysis, brain, pancreas, horse muscle, testicle, ovary and thymus, all of which were eaten voraciously except the pancreas. He concluded that the mammalian thyroid gland contains an "agens" which, when ingested, produces a rapid differentiation in the developing organism. When extremely young animals were used for the experiment, the reaction was so rapid that certain changes in structure were observed as early as 24 hours after the intake of this "agens". The abundance of earlier investigations anticipating the presence of some such agent are presented in a paper by Max Morse³ in 1912.

Following the publications of Gubernatsch, numerous investigators attempted to analyze the principle of the reaction. A review of the literature on this subject throws light on the manner in which this aim has been accomplished.

Max Morse⁴ soon confirmed the results of Gubernatsch and added that the specific effect of the thyroid gland on the metamorphosis of tadpoles was intimately linked with its iodine content. This did not appear to represent a specific thyroid reaction, since iodized blood albumin produced similar results. However, in his experiments, inorganic iodine did not produce such a precocious metamorphosis. Lenhart,⁵ later confirmed by Graham,⁹ determined that the activity and potency of the physiologically active substance of the thyroid is dependent upon its percentage iodine content and concluded that the reaction is simply based upon the stimulation of the general metabolism. He, too, found that inorganic iodine did not produce this effect. Rogoff and Marine⁶ in 1916 hydrolyzed and concentrated whole thyroid substance until its iodine content was six to seven times normal. Its metamorphic activity on tadpoles was again found to be proportional to the iodine content, while hydrolyzed iodine-free thyroid substance did not influence the metamorphosis of frog larvae.

In the same year Bennet Allen⁷ published the first of an extensive series of investigations on this subject. He commenced with a series of glandular extirpation experiments, removing the anlage of the anterior hypophysis in 430 tadpoles and the thyroid anlage in 336 tadpoles. He noted that the hypophysectomized tadpoles developed

a contraction of the pigment cells, producing a bright creamy silver color in eight days. The thyroids of these animals were smaller than normal, with a marked diminution of the colloid, while their metamorphosis was incomplete. The thyroidectomized tadpoles ceased further differentiation after development of the hind limb buds, and went on to develop into undifferentiated giant tadpoles. Later he was able to show that thyroid feeding produced a resumption of differentiation even after four months. These results were confirmed by P. E. Smith.⁸

Thyroxin isolated by E. C. Kendall^{26,27} in 1917 was at first thought to be the "agens" of Gubernatsch, although in the original papers, the effect of thyroxin was tested only on man. Later the isolation of diiodotyrosine from the thyroid gland by Harrington and Randall in 1929; which was later confirmed by Foster²⁸; showed the presence of another iodine containing constituent in the thyroid gland, although in the original papers no mention is made of biological assay.

Rogers,¹¹ confirmed by Hoskins,¹² first noted that the pituitary gland continued to develop after extirpation of the thyroid, and that the anterior lobe of the gland reached a larger size than in the control tadpoles. Allen¹⁷ in 1918 agreed with this observation of Rogers and also confirmed the work of previous experimenters, concluding that neither the pituitary nor the thyroid had any effect on the development of tadpoles up to the time of the appearance of the hind limb bud. However, after this time, further metamorphosis was retarded in all the operated tadpoles, and it ceased in the thyroidectomized animals. Increase in size continued in both groups, but was greater in the thyroidless tadpoles, which attained twice the size of normal controls. In the same year Hoskins¹² suggested a partially vicarious action of certain endocrine glands, noting that in the absence of the thyroid the anterior lobe of the pituitary developed a compensatory hypertrophy, since both glands are concerned with metabolism. He thought that this hypertrophy of the anterior pituitary lobe probably accounted for the gigantism in the thyroidectomized tadpoles while the lack of further metamorphosis was due to loss of the normal thyroid secretion.

The following year Allen and Larson²¹ in repeating their previous work on an extended basis found that tadpoles in which both the pituitary and thyroid had been extirpated showed a similar rate of development, the same color changes, and the same size as animals in which the pituitary alone had been removed. These observations seemed to indicate that the pituitary almost completely controlled the thyroid function in the tadpole. The results of these extirpa-

tion experiments were confirmed by Hoskins and Hoskins.^{17,18}

The next advance in our knowledge of the biologic action of the active principle of the thyroid gland was made by Swingle,¹⁶ who was able to accelerate metamorphosis by the administration of inorganic iodine and its compounds, potassium iodide and iodoform. He further showed that thyroidectomized tadpoles metamorphosed when fed inorganic iodine. He observed also that the thyroid follicles of those animals on a diet rich in iodine showed a greater colloid content than those of normally fed controls. By analyzing these results he drew the significant conclusion that iodine is the active constituent of the thyroid gland and that it exerts its action directly on the cells and tissues of the organism without necessarily undergoing any transformation by the glandular tissue. Thus he concludes that in tadpoles iodine itself is able to function as the thyroid hormone unless it may be transformed into such hormone by the action of tissue other than that of the thyroid gland. He therefore regards as the chief function of the thyroid gland, the extraction from the blood and the subsequent storage of the minute quantities of iodine absorbed by the organism from the food and water, which iodine may be subsequently released by the gland under pressure of the demands of the organism.

Hoskins and Hoskins^{17,18} confirmed the work of Swingle¹⁶ and investigated further some of the contradictory results that were being obtained in the glandular extirpation experiments. They successfully transplanted thyroid tissue into normal embryos, and although this produced an excess of thyroid tissue, no symptoms of hyperthyroidism could be observed. They concluded, therefore, that transplantation of a ductless gland into normal animals does not necessarily produce an increase in the hormonal secretion and offered as explanation the controlling influence of the host upon the transplant, resulting in the maintenance of the hormonal equilibrium.

While some of the symptoms in the gland extirpation experiments may be directly explained by the loss of the gland, others may be produced by the disturbance in the hormonal balance and the removal of this specific influence upon other endocrine glands. In many instances one can, therefore, only state the presence of some relation between certain organic processes and some endocrine hormone without further being able to clearly identify the specific hormone responsible for it.

With regard to the influence of the hypophysis and thyroid upon the growth and metamorphosis of tadpoles, Hoskins and Hoskins draw the following conclusions:

1. The hypophysis and thyroid are physiologically closely related.
2. Removal of the thyroid hastens growth, causes hyperplasia of the hypophysis and prevents metamorphosis of the tadpoles.
3. Removal of the hypophysis retards growth, hinders development of the thyroid, prevents metamorphosis, and retards development of cutaneous pigment.
4. Feeding of thyroid, hypophysis, or iodine to normal frog larvae hastens metamorphosis.
5. Feeding of thyroid, hypophysis or iodine to thyroidectomized frog larvae produces metamorphosis.
6. Feeding of hypophysis to hypophysectomized frog larvae stimulates growth but does not produce metamorphosis.
7. Feeding of iodine to tadpoles with both the thyroid and hypophysis removed produces metamorphosis. Inorganic iodine, thyroid substance or organic iodine have similar effects.

Smith and Cheney²⁰ repeated parts of this earlier work and were unable to confirm the finding that anterior pituitary feeding will cause partial metamorphosis in thyroidectomized tadpoles. They concluded that the pituitaries used contained iodine, and showed that when iodine-free pituitary is used, metamorphosis is not induced in thyroidectomized tadpoles.

Allen,²³ in 1925 reported the results of subcutaneous implantation experiments, showing conclusively that the anterior lobe of the pituitary is the only part of the gland intimately linked with the process of growth, while the intermediate lobe controlled the pigmentation of tadpoles. Implantation of intermediate lobe tissue in albino tadpoles produced a proliferation of the melanophores until the experimental animals became darker than the normal controls. The same author²⁴ in 1929 presented evidence to show that the pituitary and thyroid do not become biologically active and play no part in the development of tadpoles until the hind limb buds have appeared. Previous to this stage normals as well as thyroidless or pituitaryless animals respond equally to dilute thyroxin solutions and elemental iodine.

DISCUSSION

Thus the present status of experimentation appears to demonstrate that the tadpole may be used as an accurate standard in assays of the biologic activity of the thyroid gland. It also appears from the foregoing literature that the biological effect is directly dependent upon the iodine concentration of the gland. While this conclusion may be correct for normal glands, further investigation may not show that the iodine content and the biological activity of the thyroid gland in hyperthyroidism are always parallel. It is open to question whether the uniodized hyperplastic gland and the iodized hyperplastic gland with its great degree of induced colloid involution will react in a biological

assay exactly in proportion to their iodine content, since the latter may have as much as five times greater iodine content than the former. It is indeed possible that another factor may be present in the thyroid gland of hyperthyroidism.

Experiments are being conducted on this phase of the problem with the final point in view of developing a clinical biological assay of the pathological thyroid, correlating the clinical history, the histo-pathological picture, the activity of the gland and the iodine metabolism.

A review of the literature thus shows that the biological reaction to thyroid feeding appears to be fully as accurate in normal immature tadpoles as in those whose thyroid or pituitary, or both, have been removed; therefore, the complicated glandular extirpation technic may be dispensed with. As a consequence, careful preoperative studies of selected patients with toxic goiter are being made. Immediately following the thyroidectomy specimens are removed from each part of the gland which shows gross variations from the surrounding tissue. These specimens are cut in four parts; two are reserved for microscopic study; a third is weighed and placed in dichromate crystals preparatory to making a wet-weight iodine analysis; the fourth and largest is first weighed, then dried in a vacuum desiccator and preserved for tadpole feeding experiments. Later measured amounts of these desiccated portions of the thyroid glands in hyperthyroidism are fed to normal frog larvae under carefully controlled conditions.

This biological test should indicate the activity of the gland and give important information pertaining to the relationship existing between the iodine content, histo-pathology and the biological activity of the thyroid gland in hyperthyroidism.

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Repeated Abortion

Typical case reports of treatment of repeated abortion will not be presented, for they are being separately published by my colleague in this field of investigation, Doctor Ralph E. Campbell. In his series there are 13 women who have aborted two or more times previously, of which number 11 have now delivered living children at term. The treatment has been based on the use of progesterone, employing preparations made at the University of Wisconsin, and commercial material such as Proluton (Schering) and Progestin (Upjohn). The doses have been 1 to 3 units three times weekly, the maximum dose 5 units, and the duration of treatment usually lasting into the fifth month.—Elmer L. Servingshaus, M.D., Madison, Wisconsin; *Bulletin, New York Acad. of Med.*, Vol. 16, No. 2, February, 1940.

All general hospitals are caring for tuberculosis whether they like it or not and all in authority in hospitals should know more about it.—R. C. Buerki, *Hosp. Management*, October, 1939.

An Evaluation of Obstetrical and Gynecological Anesthesia

R. J. WHITACRE, M.D., and A. J. FISHER, M.D.

FOR obstetrical procedures, by far the most popular method of producing anesthesia is by inhalation. There are several reasons which account for the widespread use of this method. The high degree of controllability of inhalation anesthesia permits the anesthetist to have minute by minute control over the degree and duration of the anesthesia. This implies that more accurate, and therefore safer, dosage of the anesthetic agent is possible than with other methods of administration. It is possible with inhalation anesthesia to retard uterine contractions and produce various degrees of uterine relaxation, which is frequently necessary for the accomplishment of certain types of deliveries. This method permits the selection of one of several agents and techniques or combination of agents, each one of which can be used to advantage under various circumstances.

The choice of a particular anesthetic agent depends largely on the desires of the obstetrician and what he expects the anesthesia to accomplish. This, plus the fact that wide experience increases the field of usefulness of any one agent, undoubtedly accounts to a large extent for the varying preferences of both obstetricians and anesthetists throughout the country. The condition of the patient and the presence of co-existing pathology should always be taken into consideration when selecting the anesthetic. Two other factors that should be borne in mind are the relative potency of the various inhalation agents, and the metabolic activity of the patient. According to Guedel, the difference in resistance to anesthesia is largely a difference in the metabolic state of the patient. This is the reason why different individuals require varying concentrations of a given agent to produce anesthesia. When a potent agent, such as ether, is administered to an individual with an increased metabolic rate, a higher tissue concentration of the agent will be necessary than when a patient has a low metabolic rate or is suitably depressed by drugs. The difficulty arises when using agents of limited potency, such as nitrous oxide. If the proper amount of pre-anesthetic sedation is not given when these weaker agents are used, it is impossible to attain the desired level of anesthesia in all cases without a deficiency of oxygen.

The interests of the patient can best be served by having a selective anesthetic program rather than establishing the routine use of certain agents or techniques. This brings up a fact of

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utmost importance from the anesthetist's viewpoint. Even by careful examination of the patient prior to operation, it is not always possible to determine what particular agent or technique will be the most suitable. If the selected method of anesthesia does not prove satisfactory, the anesthetist should not hesitate too long before changing to another method or agent. Failure to appreciate this point is probably due to pride or to the routine use of certain techniques.

Regional anesthesia is employed less extensively in obstetrics because it requires considerable experience in order to produce satisfactory anesthesia in a high percentage of cases. It is less flexible and is not satisfactory for all types of deliveries. This type of anesthesia requires considerably more co-operation from the obstetrician and patient, which accounts for the limited number of men who advocate the routine use of regional anesthesia. However, regional anesthesia can be employed satisfactorily and undoubtedly is the method of choice in certain cases.

There are three principal types of regional anesthesia for obstetrics. First, local infiltration of the perineum and pudendal block. This produces fairly satisfactory anesthesia and is relatively safe. Second, caudal block. This has sporadic advocates but the technical difficulties of producing the block at the time of delivery and the relatively slow onset of anesthesia has limited its use. Third, spinal anesthesia. This method is usually dismissed as not having a place in obstetrics. However, when it is used there are several factors which require special attention. (a) In order to produce adequate obstetrical analgesia and amnesia, it is frequently necessary to employ relatively large doses of depressing drugs. The sudden removal of the stimulating

effect of uterine contractions and pain by a spinal anesthesia permits the unopposed depressing action of these drugs. (b) Due to the fact that the action of the diaphragm is limited, these patients will not tolerate any marked degree of intercostal paralysis without becoming sub-oxygenated. Levels of anesthesia which are readily tolerated by the ordinary surgical case often produce a marked oxygen deficiency in the obstetrical patient. (c) If the anesthetic agent is confined to the sacral and lumbar nerves and the dosage is conservative, this method of anesthesia may be satisfactorily employed in suitable cases.

The incidence and degree of fetal narcosis is considerably decreased by the use of regional anesthesia. Also during regional anesthesia the pharyngeal and laryngeal reflexes are active and protect the mother from aspiration of vomitus or foreign material.

Gynecological operations may be divided into two main groups: First, extra-abdominal operations which require relatively light anesthesia, and second, intra-abdominal operations which require profound anesthesia. In the extra-abdominal group one of the gases, such as nitrous oxide or cyclopropane, is nearly always satisfactory for the production of general anesthesia. Rarely, if ever, it is necessary to resort to the heavier and more toxic agents, such as ether.

The introduction of two intravenous ultra short-acting barbiturates, evipal and pentothal, has increased the anesthetist's choice of agents for light anesthesia. These drugs are especially valuable when fire-proof conditions are desired. Since the dosage required to produce anesthesia with intravenous barbiturates is 50-70 per cent of the lethal dose, the fractional method of administration should always be used. Materially smaller doses of these drugs are required when used in conjunction with nitrous oxide, thus increasing their safety without adding to the explosion hazard.

Intra-abdominal surgery usually requires profound anesthesia and maximum relaxation. It is our growing impression that in the majority of cases, the patient's best interests are served by facilitating operating conditions for the surgeon.

Since spinal anesthesia produces the most ideal working conditions in the abdomen, there has been a renewed effort to overcome its difficulties and objections. Experience has led us to believe that it is advisable to use conservative doses of the spinal anesthetic. That is, a dose less than that calculated to produce adequate sensory anesthesia. The patient is then put to sleep with a light inhalation agent before the operation is started. This combination of agents has considerably increased not only the safety but also the satisfactoriness of spinal anesthesia. When pro-

longed abdominal relaxation is required, the judicious use of the more potent agents, such as pontocaine or nupercaine, appears to be preferable to massive doses of the weaker agents, such as procain.

The introduction of the Magill endotracheal tube to common use has been a distinct advance in inhalation anesthesia. The presence of uncontrollable upper respiratory tract obstruction is always benefited by this soft rubber catheter. The use of the endotracheal tube, which may be introduced into the trachea either through the nose or mouth, permits a quieter type of breathing and more relaxed abdomen. In addition, it facilitates the administration of the anesthetic and what is more important, it assures the proper intake of oxygen and elimination of carbon dioxide.

Throughout the course of the operation the anesthetist is in the best position to evaluate, and frequently anticipate, the effect of the operation and anesthetic on the patient. If advantage is taken of this fact, prompt and more effective treatment of untoward reactions may be instituted without unnecessarily disturbing the surgeon.

In conclusion, the best results in the majority of cases can only be obtained by a highly flexible anesthetic program which permits a choice from a number of drugs and procedures, not only prior to, but throughout the course of the anesthesia. To accomplish this demands the intelligent evaluation of many factors and the highest type of cooperation between surgeon, obstetrician, and anesthetist.

Barbituric Acid Dermatitis With Photosensitization

The dangers inherent in the widespread use of barbiturates have not been sufficiently stressed. Few case reports are available in the literature, yet it is a safe assumption that reactions of various types including cutaneous phenomena are frequent. Trostler calls attention to three cases of erythema in patients who were receiving roentgen ray while taking elixir of phenobarbital. In these cases the erythema did not recur on subsequent roentgen ray therapy after the barbiturate was discontinued.

Sweitzer and Laymon report four cases of severe cutaneous reaction to barbiturates, three of which were fatal. These authors quote Sulzberger as being of the opinion that the barbiturates may cause sensitization to light, leukopenia and vascular damage.—G. V. Stryker, M.D., St. Louis; Jour. Mo. S. M. Assn., Vol. 36, No. 12, December, 1939.

How many errors have been committed because the physician has not been able to discern, under the masque of the invalid, a man.—E. Rist.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

VALUE AND LIMITATIONS OF THE TUBERCULIN TEST

THE queries and doubts concerning the tuberculin test that have arisen within the last two years have had a healthy effect on our anti-tuberculosis campaign in forcing us to review our current procedures and test the validity of past beliefs. This paper omits all discussion of the tuberculin test except as a means for finding cases of tuberculosis.

In guinea pigs the test is practically infallible. The success of the campaign for eradication of bovine tuberculosis, based, as it is, on the tuberculin test, is a strong empiric argument for the practical value of the test. The almost constant finding of tuberculosis lesions in cattle slaughtered because of a positive tuberculin reaction, and the failure to find tuberculosis in the routine inspection of millions of cattle not reacting and killed for meat production, is tangible evidence for its specificity and adequacy. In certain other animals, however, tuberculin allergy is far less conspicuous.

Tuberculin sensitivity in man can never be studied with the same thoroughness as in guinea pigs or cattle. However, observations on children vaccinated with BCG have enabled us to study the results of artificial infection and its relation to tuberculin sensitivity and these studies indicate that after very mild infection an overwhelming majority of children become tuberculin-positive.

We are here not concerned with the total number of tuberculin reactors that may be detected, but rather with the detection of significant tuberculosis by the use of the tuberculin reaction as a preliminary screen. ("Significant tuberculosis" or "a case of tuberculosis" in its public health sense, is restricted to infection with the tubercle bacillus which has proceeded to the point where it has produced symptoms recognized as those of clinical tuberculosis, or has brought about changes demonstrated by X-ray examination that are considered to indicate tuberculosis disease.) This definition places heavy responsibility on X-ray examination. If the tuberculin test is used at all in case-findings, it is as a screen to obviate the necessity of the more expensive X-ray examination. (In young adult groups, one-third or more of those tested with tuberculin may not react, and these need not be X-rayed.) It is believed by some that, on the basis of cost alone, saving X-ray examination of one-third of the subjects would not counterbalance the cost of the tuberculin test.

What does the standard first and second dose

method of tuberculin testing (fully defined by the author) detect and overlook? Of 610 cases of pulmonary tuberculosis diagnosed in the Henry Phipps Institute during 5 consecutive years, all but one reacted to tuberculin. Among the 609 reactors, 94 per cent of the white, and 96 per cent of the colored reacted to the first (minimal) dose. (O.T. used in earlier, P.P.D. in later years.) However, in other similar clinics and in hospitals attention is drawn occasionally to cases of unquestioned tuberculosis, even with positive sputum, in which the reaction is negative. Explanations for these exceptions are easily found; the fact remains that cases of anergy in typical hospital patients are probably few.

However, clinic experience is not representative of the conditions of case-finding as they occur in mass surveys; some surveys deal with groups of high and others with low infection incidence. Evidence shows that the tuberculin test is an efficient preliminary case-finding measure in groups under relatively heavy exposure, as nurses in a hospital or sanatorium. For example, among 400 nurses, 22 "cases" of tuberculosis have occurred, all of which developed or already exhibited tuberculin sensitivity some months in advance of the onset of a recognized lesion, and no case has developed in the absence of tuberculin sensitivity. In groups under exceptional exposure the tuberculin test is an effective warning sign indicating the need of close and frequent observation.

Studies conducted by the United States Public Health Service and the Department of Health of Tennessee have shown that the tuberculin test is far from being the sharp indicator, once popularly supposed, of previous simple tuberculous infection. These studies disclosed a large amount of what appears to be healed primary tuberculosis in people not reacting to tuberculin. A supplementary survey conducted at Hagerstown, Maryland, however, indicated that for case-finding purposes the tuberculin test is highly effective. In the 1000 subjects examined by both tuberculin test and X-ray, 13 cases of tuberculosis were discovered, all but one of which reacted to tuberculin, and this case was of scarred apical disease of slight extent and apparently long arrested. The author believes that an accuracy of about 90 to 95 per cent may be expected of the tuberculin test as a means of selecting subjects for examination by X-ray, but admits that a loss of 5 to 10 per cent is serious, but perhaps inevitable.—Esmond R. Long, M.D., *Amer. Rev. of Tuberc.*, Vol. XL, No. 6, Dec., 1939.

Case Record Presenting Clinical Problems

Girl, 15, gastro-intestinal upset; pleurisy, sulfanilamide, jaundice, "flu", vomiting of blood, epigastric pain, necropsy

H. L. REINHART, M.D.

A FIFTEEN-YEAR-OLD white female was admitted to the hospital with a complaint of vomiting large amounts of blood. The onset of her present illness was about nine months ago at which time she had a mild gastro-intestinal upset for which she received mild chloride of mercury and phenolphthalein licorice compound. Approximately two months after this she had an attack of pleurisy which was characterized by pain in the chest accentuated by deep breathing and a chilly sensation. This acute attack cleared up in about three days but she had a recurrence of her pleurisy one month later, for which she was given 40, 30 and 20 grains of sulfanilamide on three successive days. Approximately one month following this her family physician noticed that she was jaundiced (4½ months prior to admission). The jaundice was painless and as far as could be ascertained her stools were never without color. In spite of the jaundice she felt very well and was able to continue her activities. During the next two or three months she had repeated "colds and sore throat"; one week before admission she had the "flu" which was characterized by general malaise, headache, backache, chills, fever and weakness. She was in bed three days and since this acute illness has been very weak. On the afternoon of the day prior to hospitalization she came home from school complaining of weakness, slight pain in the epigastrium and a severe headache. She became nauseated and vomited a large amount of blood. This was composed of a mixture of dark clots and bright red blood. During the course of the evening she vomited blood on five separate occasions, the estimated total amount being about two quarts. She was given a transfusion of 500 cc. of blood and seven hours later an additional 300 cc. was administered. After the last transfusion she was brought to the hospital. Six weeks before admission she had been given sulfanilamide at the rate of 20 grains a day for two weeks.

Physical Examination: The patient was a well developed, rather obese girl who appeared acutely ill. There was a moderate, definite jaundice of the skin and sclerae. The nasal septum was deviated to the left and there were a few bloody crusts on the nasal mucosa. The lungs were clear to percussion and auscultation. The heart was slightly enlarged to the left and there was a precordial systolic murmur. B.P. 110/60. The abdomen was distended and diffusely tender with slight dullness in the flanks. The liver and spleen were palpable just below the costal margin. Both were tender. There was no edema of the extremities.

Laboratory data: Blood Wassermann and Kahn reactions were negative. Red blood cells 2.78 to

4.3 millions per cu. mm.; Hb. 7.2 to 12.7 gms.; leucocytes 9,000 to 34,000 per cu. mm.; neutrophils 50 per cent to 89 per cent; lymphocytes 4 per cent to 30 per cent; monocytes 3 per cent to 16 per cent; reticulated red blood cells 4.8 per cent to 18.4 per cent; blood platelets 116,800 to 401,400 per cu. mm. Urine: Specific gravity 1.024; albumin negative; sugar faint trace; sediment essentially negative; icterus index 21.4 to 27; galactose tolerance test for liver function 1 to 3.3 gms. excreted; (normal 3 gms. or less); hippuric acid excretion 1.2 to 1.4 gms. (normal 3 gms. or more); prothrombin 28 per cent of normal; blood calcium 9.5 mgm. per cent; B.U.N. 12 mgm. per cent to 38 mgm. per cent; CO₂ alkali reserve 70 vol. per cent; blood cholesterol 121.4 mgm. per cent; bleeding time 3½ min.; clotting time 6 min.; cell volume 33 per cent; sedimentation rate 1.2 per min.; total protein 5.7 gms.; alb. 2.24 gms.; globulin 3.27 gms.; stool specimen positive for occult blood. Cultures of stools were negative for the typhoid and the dysentery groups of bacteria. E.K.G. showed a left axis deviation and first degree heart block (probably digitalis induced).

Course in the Hospital: Following admission she was placed on "hemorrhage precautions". She was given high vitamin diet especially vitamin K and calcium, liver and bile salts therapy. On the sixth hospital day she developed pitting edema of the lower extremities and because of manifestations considered as indicating beginning cardiac failure was given digitalis. Digitalis was discontinued on the 22nd day due to a first degree heart block as indicated by the E.K.G. Glucose was given daily for approximately the first four weeks, both intravenously and by hypodermoclysis. On the ninth hospital day a surgical parotitis developed; this was incised one week later and approximately two ounces of pus evacuated. Bacterial culture of the pus revealed hemolytic staphylococcus aureus. During her stay in the hospital she was given four blood transfusions ranging in amounts from 250 cc. to 550 cc. Edema and ascites were marked by the twelfth day of her hospitalization. Mercurial diuretics were given on three occasions with fairly good results but these were discontinued because of an increase in the jaundice. On the 35th hospital day she vomited approximately 200 cc. of blood and continued to vomit blood during the next two days. Her temperature ranged between normal and 104° with a terminal rise of 108.4°. Her course in the hospital extended over a period of 40 days.

Discussion—Dr. C. J. DeLor:

The sequence of events in the fatal progress of this girl present several controversial points. The use of mild mercurous chloride early in the illness might be confusing. It is a conceded fact that calomel is relatively non-toxic in the absence

This is the forty-seventh of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Stirling Loving Hospital, Ohio State University, Columbus, Ohio.

of halogens and strong acids and this patient had neither. These substances (iodine, bromine, chlorine, fluorine and various acids) convert the mercurous chloride to mercuric chloride which is, of course, poisonous. However, if such was the case the kidneys rather than the liver would be expected to be affected. There was no evidence of renal damage or insufficiency. The intermittent and rather heavy use of sulfanilamide brings up the question of its indications and efficacy here. There are on record, cases of acute yellow atrophy and toxic hepatitis following its use. The other systems such as the hematopoietic and central nervous system are more commonly involved. But in this case where liver damage is unquestionable, the drug was presumably not given until the liver disease was well established. This raises the question of the effect of sulfanilamide on an already damaged liver. We are all aware of the individual variation in susceptibility of patients toward sulfanilamide so what holds true in one case is not necessarily true in another. In this regard Cleveland at the Mayo Clinic reports the use of adequate doses of sulfanilamide in a patient with severe liver damage associated with a post-operative cholangitis. Recovery ensued although "a fatal outcome might otherwise have been anticipated". In Cleveland's case, administration of the drug was stopped because of leukopenia, there being no evidence of added embarrassment to the severe hepatic insufficiency and the drug was given credit for cleaning up the infection. Cleveland concluded that sulfanilamide is not contraindicated in patients with severe liver damage if the dye is indicated for a specific infection. Unquestionably the dye has toxic properties and its use should be closely supervised. In critical states it may save a life as in the case cited above.

As to the differential diagnosis in this patient, one must consider what diseases produce a slow, progressive illness characterized by intermittent exacerbations of fever, jaundice, severe hepatic insufficiency and hemorrhage. Acute catarrhal jaundice is rarely, if ever, fatal. Weil's disease is much more acute and stormy. Yellow atrophy is characterized by a persistent jaundice and the liver is not palpable. Cirrhosis is chronic, progressive and usually fatal within short periods of time once the symptoms have developed. The classification of cirrhosis has been a medical football. If we follow Mallory's classification this patient probably falls into the toxic type which clinically would be a portal cirrhosis. The hemorrhagic diathesis manifested by gastric and mucosal bleeding in the face of a hippuric acid excretion of 1.2 gms. with a correspondingly hypoprothrombinemia leads one to consider the probability of ruptured esophageal varices or hepatic insufficiency as the etiology of the bleed-

ing. The use of mercurial diuretics for anasarca is not contraindicated in the presence of liver disease. One patient we observed for four years with an advanced portal cirrhosis had several bouts of hemorrhagic diathesis and the recurrent edema was relieved only by frequent intravenous and rectal mercurials.

Dr. H. L. Reinhart:

Anatomic diagnosis — Icterus, ascites and bilateral hydrothorax; portal cirrhosis with fatty metamorphosis (1250 grams), splenomegaly (675 grams), multiple petechial hemorrhages of stomach and duodenum, dilated esophageal veins.

A clinical history of hematemesis, anemia, splenomegaly, ascites and jaundice in a young individual immediately calls to mind Banti's syndrome. More critical clinicians demand in addition, an idiopathic hypochromic anemia, leucopenia, and a fairly characteristic evolution of the disease. The most critical clinicians doubt the existence of a clinical or pathological entity such as Banti's disease. If the range of variation in the clinical and pathological manifestations of Banti's syndrome is so great that there is not a single clinical, physiological, or pathological feature characteristic of the disease, there is little to be gained in discussing this case either as representing or eliminating the Banti's syndrome. Certainly the so-called classical features of the syndrome are late manifestations; there is little accurate or complete information available of the natural history of such a syndrome, particularly in the early stages (presplenomegaly). The available evidence suggests that the early manifestations may be those of an idiopathic hypochromic microcytic anemia which may respond to iron therapy. The splenic enlargement is attributed to chronic passive congestion which may be the result of portal obstruction either within or outside of the liver. Such portal obstruction provides a natural explanation for the gastro-intestinal hemorrhages and hematemesis. The etiology of the cirrhosis of the liver is obscure.

It is interesting to note from the laboratory investigations and therapy instituted in this case that the clinical attention was largely focused on the impairment of hepatic function. The anemia and leucocytosis were presumably considered the result of the liver disease and the repeated infections. In retrospective study of all the evidence available it would seem that the manifestations (g.i. hemorrhages, hematemesis and resulting impairment of nutrition) of portal obstruction and hepatic insufficiency were the crucial factors in the demise of the patient. The anatomical investigations revealed a cirrhosis which quantitatively seemed inadequate to explain either the degree of hepatic insufficiency or the portal obstruction.

The Hard of Hearing

EDWARD KING, M.D., CINCINNATI, OHIO

THE hearing problem is very close to the otologist, but it concerns the entire medical profession, and for that reason I am asking your indulgence for a few minutes to point out to you the necessity for an honest endeavor to solve the problem.

Up to the present time the campaign has been in the hands of a lay organization; the American Society for the Hard of Hearing. This society was founded about 25 years ago by Wendell Phillips, a noted otologist of New York City. At the present time this organization has 166 branches, and you have one in your city. Co-operation with the medical profession has been one of the aims of this society and I advise you if you have hearing problems in your practice to consult the local society for the hard of hearing.

Through the efforts of this society the hearing tests of school children have been going on for a number of years. Through their efforts lip reading has supplanted the sign language and electrical hearing aids have displaced the old hearing tube and various quack methods of improving hearing. Along with the development of electrical hearing aids have come the pure tone audiometers. The firms that are selling hearing aids are in business for profit. In their sales offices they have established centers for testing the hearing. It may be that legislation will be asked for to license those who are trained to do audiometric tests, just as we have optometrists. We hope that the medical profession will interest itself in preventing the approval of anyone who is not qualified to make a proper examination of the hearing apparatus.

The profession is vitally concerned in the prevention of deafness. It has been pointed out that the prenatal administration of quinine, salicylates and alcohol may impair the hearing of the new born child. Proper consideration of this matter must be given by the practitioners because many pregnant women have been known to taken large quantities of these drugs. A study of the children in deaf institutes has revealed a large proportion with a family history of deafness. The medical profession can aid in this problem by advising the proper use of sex hygiene and discouraging the inter-marrying of those with hearing defects.

Contagious diseases, notably scarlet fever and measles, have played havoc in the past with the ears. It is important for the practitioner to observe the ears, especially during the convalescent

stage. The drum membranes should be examined and the hearing checked. It is not necessary to use an audiometer to test the hearing. A child with normal hearing hears a whisper at 20 feet in each ear. In doing a hearing test, one ear should be closed tightly and the examiner should whisper numbers or syllables from a position behind the patient.

Simple otitis media occurs with the common cold, or as a result of swimming or diving. Any infection in the nose may give rise to an ear infection. Blowing the nose is a dangerous habit and should be cautioned against. Drawing the secretion into the nose and spitting it out is far safer. Loss of hearing after otitis media is common as a result of adhesions. Mild treatment with inflation and massage will prevent a hearing loss.

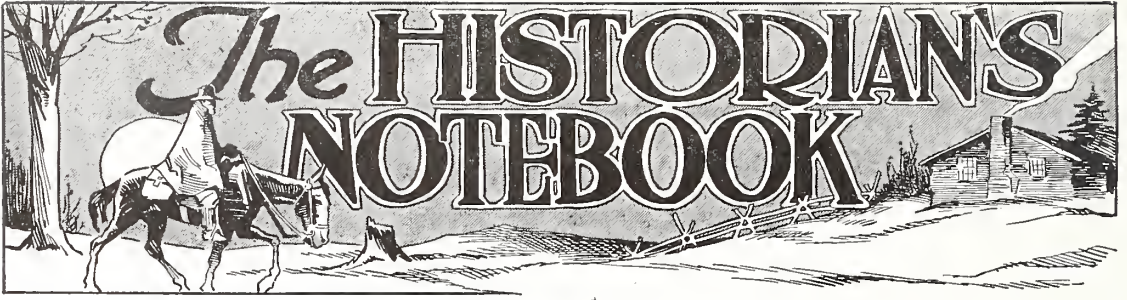
We must admit that very little progress has been made in the treatment of otosclerosis and nerve deafness. Unfortunately they comprise the greater part of the adult patients seeking relief. We do insist on a careful study of each patient and we try to dispense with such bizarre treatments as inflation of the tubes. These patients should be told of the actual conditions confronting them and of the opportunities for ameliorating their difficulties by lip reading and electrical hearing aids.

I am sure that you will be interested to know that W.P.A. funds are now being employed for testing the hearing of all the school children in this state. During the last year all the children in Cincinnati public schools were tested. If the funds last, every child in the state will have this examination.

I will not bore you with statistics gathered since the work has been started, but I am sure that you will be interested to know that on the whole throughout the country, an average of about 5 per cent of school children have been found to have hearing defects which make it difficult or impossible to carry on their work in the classroom. In the vast majority of instances, the hearing defect was not discovered until the audiometer tests were done in the schools. Many of these children have been restored to normal work through medical means. Those whose hearing could not be restored have been instructed in lip reading, so that they are able to take up a normal life. We are happy to have a part in this work and we are very grateful for the interest you have manifested.

Carew Tower.

An editorial summary, prepared at request of The Editor.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Medical Notes on Knox County*

It was past midsummer. The hospitals were full, but thanks to the skill and devotion of Surgeon William Trevitt the loss of the Second regiment from sickness was less than that of any other volunteer regiment in the army. Dr. Trevitt lately departed to the great camp in the spirit land to join a large majority of his old comrades who had encamped there long before him. Those who remain behind cherish his memory with affection, and before many years will pass away all will be again reunited. A rigorous system of drill was adopted, and in precision and promptness the men of the Second acquired the character of veterans. Before advancing from Camargo Morgan's regiment could execute every manoeuvre in the school of the battalion with rapidity and exactness. When this was done he taught his regiment to march in square, and to form square from line of battle, without breaking into column, neither of which was taught in our tactics. To the steadiness and precision acquired by the Second regiment in marching in square, it afterwards owed not only victory but existence.

While stationed at Camargo, under the direction of Colonel Morgan, Major William Wall built an earthwork with five bastions which was christened Fort Wall, and it has since become historic in the civil wars of Mexico.

There was an enemy in Mexico more dreaded by our soldiers than the Mexicans. It was the tarantula. The tarantula belongs to the family of the spider. In Italy it is comparatively small and not esteemed dangerous; but in Mexico it attains a size that an ordinary pint cup would scarcely cover. The back and legs are covered with a long hair of a reddish color, and the eyes project from its head.

One morning T. Burr Wadsworth, a soldier in Kenton's company, called at the hospital and complained at what appeared to be a carbuncle on his cheek. Surgeon Trevitt told him that it

was not sufficiently ripe to lance, but applied some lotion. A few hours later Wadsworth returned, with his face and head badly swollen. Trevitt applied the lance, pouring ammonia on the wound. In the meantime a large tarantula was found in Wadsworth's blankets. Stupor set in; the poor fellow died, and company B had to mourn the loss of one of its best soldiers.

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Jelloway, originally named Brownsville, is the only town in Brown township. It is situated near the Big Jelloway creek, in the northeastern part of the township. It was laid out in 1840, by Freeman Pipher. Dr. Maynard was the first physician. The Jelloway Mutual Life Insurance Association was organized March 5, 1878. Among the charter members was Dr. A. J. Hyatt, medical examiner, who was the only physician in Jelloway.

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Prior to 1825, the commissioners appointed the county treasurers. Henry Haines, who came to Knox county about 1803, was their first appointment, it having been made in the year 1808, shortly after the organization of the county. Mr. Haines held the office up to 1815, when he was succeeded by Mr. George Downs.

Mr. Haines became deranged on the subject of religion, and was at the time an active and leading member of the Christian denomination at that early day called New Lights. He officiated with James Smith in the first conference held in the county, of which David Young, of Zanesville, was presiding elder.

Mr. Haines became a loud exhorter and, being deranged, secured a tin horn and rode around the town and county, day and night, notifying the people to prepare for judgment, as the world was coming to an end. He proclaimed the same doctrine in his insane moments as that subsequently promulgated by the Millerites. When he became ungovernable he was taken to Dr. R. D. Moore, who confined him in a mad shirt, or straight jacket, and treated him for several weeks, until he was restored to reason; but he said if he ever

*From History of Knox County, Ohio, 1803-1881; A. A. Graham & Co., Publishers.

became insane again he would kill Dr. Moore. Shortly after this the doctor removed to Fayette County, Pennsylvania. Haines again became deranged, and was soon missed by his relatives and friends. His unexplained absence created considerable alarm. The first information that his family received of his whereabouts was in a letter from Dr. Moore. Haines had made his way to Connellsville for the purpose of killing the doctor, and had stolen the family silver to pay his way. Upon his arrival at Connellsville he became rational again, and he told the doctor what his purpose had been. Dr. Moore took the poor man to his home, cared for his wants, retained him for several weeks, and provided means for his return home. In the summer of 1817 the tin horn had ceased to be heard on the streets of Mt. Vernon for several days and nights. Haines had left his home once more. Word was brought to town that Haines was missing, and fears entertained that he had made away with himself. It was on Sunday, and nearly all the population of the village turned out to scour the woods adjacent to his farm. It was not until late in the afternoon that he was found, suspended from the limb of a small tree, about a quarter of a mile south of his residence on the Merritt farm.

* * * *

Since Centreburgh became the central point in Hilliar township, elections have been held at that place. Dr. Richard Hilliar, who was the first physician in the new settlement, was the first on the list of mortality. He died in September, 1811, and was buried on his own property. Physicians practicing in Centreburgh in 1881 were Drs. R. C. M. Lewis, D. H. Ralston, W. B. Merriman and J. R. Moody.

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One of the early physicians and prominent citizens, Dr. A. C. Scott, came to Bladensburg in 1841. He was born near the village of Clinton, March 13, 1817. His father was the Rev. James Scott, the pioneer Presbyterian preacher of Knox county. Dr. Scott attended the school in his boyhood at Clinton and Mt. Vernon, and was a pupil at the first session of the old Martinsburgh academy, after which he spent one year at Washington College, Pennsylvania. On his return from thence he studied medicine in Mt. Vernon with Dr. J. N. Burr as his preceptor. He commenced the practice of his profession in Centreburgh in April, 1840; was married to Miss Hannah Denny, of Jackson township, on June 24 of the same year. He has four sons, the oldest of them, Dr. J. Foster Scott, resides at Sarcxie, Jasper county, Missouri; William B. and A. C. Scott, Jr., are farmers and reside in the vicinity of Bladensburg, and Dr. John W. Scott, who is associated in the practice of medicine with his father. His two daughters are Violette and Lizzie. Dr. Scott has been a very successful physician, with a

large and lucrative practice. He served as justice of the peace, and held other offices.

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The practicing physicians of Waterford from 1841 to 1880 have been: Drs. Copeland, Griffie, Turner, Bird, Walters, Spooner, Townsend, Cook, King, and C. C. Hill, a graduate of Jefferson Medical College of Philadelphia.

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Dr. William Hayes, from Baltimore, Maryland, came to Milford about 1830. He was at that time a young man, a physician by profession, in somewhat destitute circumstances, and lived for several years with Judson Lamson. He became a successful physician and a minister of the gospel. He preached several years for the Christian church, and then several years for the Disciple church, and was also a successful farmer. Having purchased some 400 acres of land he made wool growing the leading branch of his agricultural pursuits. He later resided in the State of New York.

* * * *

Among the early settlers was a man by the name of Amzie Stevens who was remarkable for his quaint proportions. He was a blacksmith by trade and lived in the north part of the township. It is said that his foot measured 16 inches in length, and that his limbs and frame were of the same gigantic proportions. For the purpose of perpetuating the fact of his existence, and also to show to future generations, the fact that giants lived in those days among the early settlers, he sold his body to Dr. Maxfield, for his museum, but the doctor died long before Amzie gave up the ghost; therefore, when Amzie died he was buried the same as other mortals. He was buried in Morris township, but the exact spot is not known.

* * * *

Among the earliest settlers in Fredericktown is found the name of Dr. John Byers, who located here in 1812. He moved about 1835 to Hardin county. His three sons emigrated to Arkansas. The boys acquired considerable distinction as attorneys. The old gentleman was one of the earliest practitioners of medicine in this township. Dr. David Wadsworth, another physician, died many years ago. His son, T. B., died a soldier in the Mexican war, and his daughter, Eliza Ellen, became Mrs. Struble.

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The practicing physicians of North Liberty have been Drs. John Waddell, Robert McLaughlin, Edward Booth, T. Jefferson Young, George Shira, and Charles Mahaffey.

* * * *

Dr. Charles Robert Bradfield, Mt. Liberty, was born in Union township, May, 1846. His youth was spent on the farm and attending district

school. He attended school at Hayesville and Danville. While on the farm he read anatomy during his leisure time. When about 17 years of age he went to read medicine with Dr. L. W. Sapp, a Homeopathic physician of Cleveland, but changed his purpose and read with Drs. Sapp and Balmer of Danville, physicians of the regular school. He read with them three years and attended lectures in Cleveland, and finished his course at Detroit, Michigan, in 1870. His first practice was with his preceptors at Danville, where he remained until 1872, when he located at Mt. Liberty. He soon secured a large practice and has been successful in retaining it. He was social in his manners and liberal in his views.

Dr. Bradfield married Miss Sarah Dunlap, daughter of Salathiel Dunlap, of Butler township, January, 1868. Their children are Stella, Lizzie A. and Dale.

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Dr. William E. Edwards, son of Moses and Catherine Edwards, was born near the town of Union Bridge, Carroll county, Maryland, in 1827; came to Ohio with his father's family in 1832, lived in Coshocton county four years, and came to Knox county in 1836. He married Sarah Paulina Heath, of Richland county. His father died when he was young. He supported the family until 25 years of age; he then engaged in the study of medicine with Dr. Aaron Edwards and attended lectures at the University of Michigan. He commenced practice in Putnam, Muskingum county, in the spring of 1855, removed to Amity, this county, remained there 12 years, then returned to this place with his family, two sons and one daughter. He joined the Methodist Protestant church, afterwards united with the Methodist Episcopal church; he was also a member of Independence Division, Sons of Temperance, also Ellicott Lodge 267, I.O.O.F., and No. 170, R. and A.M.

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Dr. Eugenio R. Eggleston, Mt. Vernon, was born in Portage county, Ohio, July 28, 1838. He is of English descent. When about 15 years of age, young Eggleston began clerking in a store in Munson, Ohio, and continued there until September, 1861, when he enlisted in company G, Forty-first Ohio volunteer infantry, and was with the army of the Cumberland. He was appointed orderly sergeant of the company, and sergeant major, and in June, 1862, he received a second lieutenant's commission in the same regiment, and in 1863, he was commissioned first lieutenant, and appointed adjutant of the regiment, and in 1864 he was brevetted captain, with others, for meritorious conduct. He resigned in October, 1864, and returned home.

He commenced reading medicine with Dr. T. H. Sweeney of Chardon, Ohio, and graduated in February, 1874, at the Cleveland Homeopathic

college. He came to Mt. Vernon, Ohio, in the fall of 1875, and has since been practicing with eminent success.

Dr. Eggleston was twice married. His first wife was Anna M. Davis, of Geauga county, to whom he was married in September, 1862. They had one child. His wife dying, he married June, 17, 1876, Mrs. Abbie A. Darby nee Thompson. His wife is also a physician of the same school, having graduated at the same college in 1876.

* * * *

Dr. Byron Eggleston was born near Chicago, Illinois, September 29, 1836, in an Indian tent of the Cherokee tribe; received his education at Utica, Ohio, and read medicine with his father, Hiram Eggleston, M.D., and attended lectures at Springfield, Illinois, after which he commenced practicing. He has been located at several different places, but now at Mt. Vernon, where he expects to remain. Dr. Eggleston was married May 27, 1860, to Miss Elizabeth Ann, daughter of John Hearn, of Mt. Vernon, by whom he had four children—Amanda Ann, born November 21, 1862; John Hiram, born January 7, 1865; Carey Evan, born August 9, 1868, and Adella, October 10, 1872.

* * * *

Dr. W. S. Gardner, Rosstown, Union township, was born in Mt. Holly, Knox county, and was taken to New Jersey when he was small, and remained about three years, then he commenced his medical as well as his literary education. His mother died in New Jersey. After his father's second marriage he went to Philadelphia and finished his medical education, and commenced practice in that city. His health failed him there and he removed to Bladensburg, Ohio, where he met and married Emma M. Gardner in 1874. He practiced there for five years and built a good little home. He came to Rossville in 1879.

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Dr. E. M. Hall, Fredericktown, was born near Delaware, Ohio, October 31, 1845, removed with his parents to Morrow county, Ohio, when a child, and in August, 1862, left school to join the One Hundred and Twenty-first regiment Ohio volunteer infantry, remained with it until 1864, when he was severely wounded in one of the battles before Atlanta, Georgia, and was mustered out in 1865. For the next six years he was engaged in preparing himself for the practice of medicine.

Immediately after graduation, in the spring of 1871, he located in Fredericktown, where he engaged in the practice of medicine and surgery. He was married in 1874 to Laura B. Nevius, daughter of Aaron and Susan Nevius, who were among the earlier settlers of Knox county. They have two daughters—Mary and Aletheia.

Proceedings Of The Council

Policy Regarding Medical Service Plans Adopted; Series of District Meetings To Educate Members on This Question Approved; Reports of Committees Heard and Recommendations Concurred In; Miscellaneous Business Transacted

THE Council of the Ohio State Medical Association met on Sunday, February 18, 1940, State Headquarters Office, Columbus, with the following in attendance: President Smith, President-Elect Skipp, Past-President Hein, Treasurer Beer; Councilors Schriver, Hogue, McNamee, Goehring, Swan, Sherburne and Burley; Dr. Lowe, chairman, and Dr. Houser, member of the Committee on Public Relations and Economics; Dr. Forman, Editor of *The Journal*, Executive Secretary Nelson, Assistant Executive Secretary Saville, and Director of Public Education Aszling.

Minutes of the meeting of The Council held on December 10, 1939, as published in the January, 1940, issue of *The Journal*, pages 68-72, on motion by Dr. Sherburne, seconded by Dr. Hogue and carried, were approved as published.

Membership figures were reported as follows: Membership as of February 17, 1940, totaled 5,277 compared to 5,288 on the same date a year ago and to 6,388 as of December 31, 1939. It was pointed out that probably the slight decrease was due to the fact that notices to delinquent members were mailed one week later this year than in 1939.

Members of The Council reported on activities in and visits to their respective county societies since the last meeting of The Council.

REPORT OF COMMITTEE ON PUBLIC RELATIONS AND ECONOMICS

Dr. Lowe reported for the Committee on Public Relations and Economics, which had met on Saturday evening, February 17, in the State Headquarters Office.

Medical Service Plans—A detailed report on consideration given by the Committee on Public Relations and Economics to certain recommendations made by the Committee on Medical Service Plans at its meeting on January 21, 1940, was made by Dr. Lowe, supplemented by remarks by Dr. Smith and Dr. Hein. Dr. Lowe stated that the Committee on Medical Service Plans had recommended to the Committee on Public Relations and Economics and The Council that The Council approve a suggestion made by representatives of the Toledo Academy of Medicine that a test case be started in Toledo to determine whether or not a medical service plan is subject to the state insurance laws, and that the State Association make a contribution not to exceed \$900 toward the legal services required in prosecuting the proposed test case. A communication from Dr. Fred M. Douglass dated February 17, 1940, with

respect to expenditures for legal services in connection with the proposed test case was read to The Council. Dr. Lowe then presented a statement on this question, which had been prepared by the Committee on Public Relations and Economics at its meeting on the previous evening after a thorough discussion of the request for approval and partial financing of the proposed test case:

Statement of Policy

"The Committee on Public Relations and Economics recommends that the Council adopt the following statement of policy regarding a recommendation made by the Committee on Medical Service Plans:

"Due to the following reasons, The Council feels that it cannot concur in a recommendation made by the Committee on Medical Service Plans approving the initiation of a test case to determine the legal status of a Toledo medical service plan and a financial contribution not to exceed \$900 by the State Association toward legal expenditures in preparing and prosecuting the proposed test case:

"1. At the present time the Toledo plan which would serve as a basis for the proposed test case is not in such form that it can be analyzed by The Council. The attorney for the Toledo group, after reviewing the plan in its present form, has advised that it will be 'necessary, under Ohio law, to prepare a fundamentally different schedule or plan in order to avoid running foul of the Ohio insurance laws'. The Council feels that it should not approve of a test case on a plan which it has not had an opportunity to review and analyze.

"2. There is no assurance at this time that the Toledo plan, which would be drafted for the purpose of making the test case, will be so worded that it would prevent groups and organizations outside the medical profession from inaugurating medical service plans, a danger which might result from attempts to set up the plan so as to place it outside the scope of the Ohio insurance laws.

"3. If the verdict in the proposed test case holds that the medical service plans is 'insurance', nothing beneficial will have been accomplished. On the other hand, the publicity given to the proceedings might picture the medical profession as endeavoring to start an insurance plan without proper legal basis and would have a detrimental effect on efforts which would have to be put forth subsequently by the medical profession to obtain enactment of an enabling act.

"4. Even if the verdict in the test case were to be favorable, The Council believes it would be unwise for the profession to initiate a medical service plan without an enabling act as a basis. Without a legal foundation for a medical service plan, the profession would constantly be confronted with litigation of all kinds, despite the

favorable court decision in the one instance. Also, certain safeguards and checks and balances on finances, contracts, etc., which would be set up in an enabling act would be missing, thus opening up the plan and the profession to criticism on the part of subscribers and the public generally.

"5. Should the profession proceed without enabling legislation, there is a danger that the insurance department or other interests would attempt to have a regulatory law enacted which would not be agreeable to the medical profession. Such a situation would result in many complications and difficulties and might even undermine the whole movement on the part of the profession to establish sound medical service plans under the control of the profession.

"6. Other state medical associations in states where medical service plans are in operation, or contemplated, have obtained enabling legislation and have advised other states to do so.

"7. Even if the above objections were not valid, it is difficult to see how any time can be saved through the initiation of a test case. The courts move slowly and it is unlikely that a decision could be obtained before late in the Fall of 1940 at the earliest. When the General Assembly meets early in 1941 an enabling act can be presented to the Legislature. In the meantime the profession can be perfecting its plans and be ready to start them as soon as the enabling act is in effect.

"8. The Council believes that education of the profession on the question of medical service plans and perfecting of such plans are more important at this time than a test case through which the profession would gain nothing but on the other hand might open itself to adverse public opinion and the risk of having its efforts to put sound medical service plans in operation collapse.

"Obviously, The Council cannot prevent those sincerely interested in starting the Toledo plan from initiating a test case if they want to do so, and The Council would not interfere even if it had that right. But, The Council advises against the inauguration of a test case, believing that it would be for the best interests of the profession and a protection of the program to start medical service plans in Ohio if a test case is not undertaken at this time."

On motion by Dr. Sherburne, seconded by Dr. Beer and carried, The Council, by unanimous vote, approved the foregoing statement of policy.

District Meetings—It was reported by Dr. Lowe that his committee had given careful consideration to a recommendation of the Committee on Medical Service Plans that The Council approve the holding of a series of meetings in the various Councilor Districts for the purpose of giving members of the Committee on Medical Service Plans an opportunity to discuss with officers, legislative and economic committeemen, and delegates the entire question of medical service plans. It was pointed out that the Committee on Medical Service Plans felt that such meetings would provide an opportunity for informing the proper officers and committeemen of the local medical societies about the activities of the committee so that they, in turn, could discuss this question

with the members of their respective societies prior to the 1940 Annual Meeting in Cincinnati, May 14-16, when the House of Delegates may be asked to take some action. Dr. Lowe then presented the following recommendations from the Committee on Public Relations and Economics: "That The Council, collectively and individually, actively cooperate with the Committee on Medical Service Plans in calling and preparing for the suggested district meetings and that the cost of such meetings, exclusive of traveling expenses of those invited to attend, be assumed by the Ohio State Medical Association."

On motion by Dr. McNamee and seconded by Dr. Hogue and carried, the above recommendation was approved by The Council.

Discussion at Annual Meeting—The Council was asked to approve a suggestion made by the Committee on Medical Service Plans and concurred in by the Committee on Public Relations and Economics that Dr. J. A. Hannah, chief medical officer of Associated Medical Services, Incorporated, Toronto, Canada, one of the outstanding voluntary prepayment medical service plans now in operation, be invited by the State Association to address a general session at the 1940 Annual Meeting, such session to be held from 4:00 to 5:00 P.M. on Tuesday, May 14.

On motion by Dr. McNamee, seconded by Dr. Goehring and carried, the foregoing recommendations of the committee was approved by The Council.

F.S.A. Program—Dr. Lowe reported that the Farm Security Administration has asked the cooperation of the State Association in a plan for physical examinations of its clients in one "demonstration" county, such examinations to be done by physicians in private practice in cooperation with the county medical society. He stated that the Committee on Public Relations and Economics recommended that The Council approve, in principle, the proposed plan of the F.S.A., provided the plan, in detail, meets with the approval of the medical society of the county selected and that the local medical society wishes to cooperate in the procedure.

On motion by Dr. Skipp, seconded by Dr. Sherburne and carried, this recommendation of the committee was approved.

Workmen's Compensation—A detailed report on the transactions of the Sub-Committee on Workmen's Compensation at a meeting held in Columbus on the afternoon and evening of February 14, 1940, the evening meeting being a joint meeting with the members of the State Industrial Commission and its divisional chiefs, was made by Dr. Lowe. He reported that the committee at its afternoon meeting had considered many items, such as suggested changes in the fee schedule and regulations governing physicians and hospitals,

the problem of fraud and abuses on the part of a few physicians and employers, and difficulties in connection with the filing and handling of Workmen's Compensation blanks especially C-3 (medical only) blanks. The committee, Dr. Lowe stated, made definite recommendations regarding the fraud and abuses and improvements in the system of handling blanks. He outlined such recommendations in detail pointing out that they will be presented to the Commission for its consideration if approved by The Council. Changes in the fee schedule and regulations agreed to by the committee, subject to the approval by The Council, were discussed thoroughly. Members of The Council expressed dissatisfaction with some of the proposed changes in the fee schedule and regulations, suggesting that further consideration be given to them by the Sub-Committee on Workmen's Compensation.

On motion by Dr. Hein, seconded by Dr. McNamee and carried, the report of the Sub-Committee on Workmen's Compensation, with the exception of that portion of the report (Section 5) dealing with proposed changes in the fee schedule and regulations, be approved and that the committee give further consideration to that section of the report not agreed to by The Council.

X-Ray Regulations—Dr. Lowe reported that the Committee on Public Relations and Economics had approved the following recommendation of the Sub-Committee on Workmen's Compensation with respect to present methods being used by the State Industrial Commission in the handling of X-ray reports, X-ray films, etc.: "The committee reaffirms the action of the Special X-Ray Committee of the Ohio State Medical Association on January 9, 1937, approving recommendations made by Dr. McCurdy as to the handling of X-ray films and which recommendations subsequently were officially authorized by the Industrial Commission."

On motion by Dr. Hein, seconded by Dr. McNamee and carried, this recommendation was concurred in by The Council.

Fees for Insurance Blanks—The Committee on Public Relations and Economics, it was reported by Dr. Lowe, had considered a communication from a member of the State Association expressing dissatisfaction with the statement of policy with respect to the charging and payment of fees for services rendered by physicians in providing information to insurance companies, adopted by The Council on October 8, 1939, on recommendation of the committee. He reported that the committee is of the opinion that the statement of policy adequately covers the situation and recommends to The Council that it reaffirm its action at that time. On motion by Dr. Sherburne, seconded by Dr. Beer and carried, The Council approved the foregoing recommendation.

Hospital Building Program—Dr. Lowe reported that the Committee on Public Relations and Economics had analyzed a bill, S. 3230, introduced by Senator Wagner at the present session of Congress, providing for financing by the Federal Government of a hospital building program to establish hospitals in communities where a definite need is proved. The following recommendation of the committee on this proposal was presented: "That The Council recommend to the American Medical Association that it offer an amendment to S. 3230 to provide that county and state medical societies shall be consulted when surveys are made to determine the need for any hospital to be built under the provisions of this proposal."

On motion by Dr. McNamee, seconded by Dr. Sherburne and carried, this recommendation of the committee was adopted and the Executive Secretary instructed to transmit a copy of the recommendations to the American Medical Association.

On motion by Dr. Hein, seconded by Dr. Beer and carried, The Council approved the report of the Committee on Public Relations and Economics, submitted by Dr. Lowe, the chairman, as amended.

REPORT OF COMMITTEE ON EDUCATION

Regional Lectures—Mr. Saville, Assistant Executive Secretary, submitted a report for the Sub-Committee on Regional Postgraduate Lectures with respect to transactions of that committee at a meeting in Columbus on Sunday, February 4, 1940.

The sub-committee recommended to The Council the following arrangements for the 1940 course of regional postgraduate lectures:

1. That courses be held in 10 regions simultaneously instead of five, to make the lectures more readily available to more members.

2. That the number of sessions be reduced to three, one monthly during the months of September, October and November.

3. That each meeting consist of one afternoon and one evening session with a dinner for all in attendance intervening.

4. That there be two 45-minute talks at the afternoon session and two 45-minute talks at the evening session.

5. That two speakers to present the four talks at each meeting be selected, if such arrangements can be worked out.

6. That courses be held in the following centers if it is determined that such centers have adequate facilities: Napoleon, Wapakoneta, Lebanon, Tiffin, Columbus, Portsmouth, Mansfield, Athens, Cadiz, and Warren.

7. That efforts be made on an experimental basis to provide visual teaching through demonstrations or exhibits, if possible.

8. That each speaker be requested to prepare

an outline of his address to be mimeographed and copies provided at the end of each session for those in attendance.

On motion by Dr. McNamee, seconded by Dr. Schriver and carried, the proposed setup for the 1940 regional meetings was approved as outlined.

Public Health Education—The Executive Secretary presented a report on a meeting of the Sub-Committee on Public Health Education, held in Columbus on Sunday, February 4, 1940. A recommendation of the sub-committee that the Ohio State Medical Association cooperate with the National Youth Administration in the formation and operation of a health education program for N.Y.A. clients was presented. It was pointed out that officials of the N.Y.A. had requested the State Association to assist on this matter, such assistance to take the form of providing speakers for group meetings of N.Y.A. clients and in the preparation of pamphlets, posters and exhibits.

On motion by Dr. McNamee, seconded by Dr. Beer and carried, this recommendation of the sub-committee was approved by The Council.

1940 ANNUAL MEETING

The Executive Secretary reported that final arrangements for the 1940 Annual Meeting are about completed. He pointed out that the program would be published in the April issue of *The Journal* and that the Cincinnati committees are at work on details for the meeting, which will be held on Tuesday, Wednesday and Thursday, May 14, 15, and 16, at the Netherland Plaza Hotel, Cincinnati. The following specific recommendations of the Committee on Scientific Work, in charge of Annual Meeting arrangements, were presented:

(1) That The Council concur in the selection of Dr. William M. Doughty as general chairman of the Cincinnati Committees on Arrangements; and (2) that The Council suggest topics to be discussed at a general session on Medical Economics, scheduled for 4:00 to 5:00 P.M. on Thursday, May 16.

On motion by Dr. Sherburne, seconded by Dr. McNamee and carried, the selection of Dr. Doughty was approved.

On motion by Dr. Swan, seconded by Dr. McNamee and carried, The Council requested the Committee on Poor Relief to arrange for formal or informal discussion of this subject at the general session referred to.

MEMORIAL RESOLUTION

The Council adopted, on motion by Dr. McNamee, seconded by Dr. Swan and carried, the following resolution with respect to the death of Dr. Charles W. Stone, Cleveland, a member of the Committee on Public Relations and Economics and a former President of the State Association:

"WHEREAS, Through the death on December 9, 1939, of Dr. Charles Walter Stone, Cleveland, the medical profession lost one of its real leaders, a scholar, a true physician, and a sterling gentleman, and

"WHEREAS, Dr. Stone's services as a member of the Committee on Public Relations and Economics of the Ohio State Medical Association and as delegate from Ohio to the American Medical Association, as well as his services as a former President of the Ohio State Medical Association, have been outstanding, and

"WHEREAS, The example which he set as a worker in medical organization and as a practicing physician may well be used as a pattern by those who must shoulder the responsibilities which were vested in him in his official capacities, and

"WHEREAS, He enjoyed the confidence and admiration of his colleagues because of those characteristics so well expressed in the following comments regarding his death, published in *The Bulletin of the Academy of Medicine of Cleveland*, of which he was an active worker and leader: 'He saw life in the complexity of its pattern and daily gave aid in making difficult decisions. Under all circumstances he was the same, patient in ascertaining the facts, understanding of the viewpoints of others, firm in his well considered opinions, kindly and helpful. To all he was gracious; to his friends he endeared himself by his loyalty, his fine dependability, his cordiality and charming hospitality.'

"THEREFORE BE IT RESOLVED, That The Council of the Ohio State Medical Association this day, February 18, 1940, officially speaking for the medical profession of Ohio, expresses the deepest regret at the passing of Charles Walter Stone, a leader whose counsel and opinion will be greatly missed by those actively engaged in furthering the purposes of the Ohio State Medical Association and the advancement of medicine, and

"BE IT FURTHER RESOLVED, That the sincere sympathy of the medical profession of Ohio be extended to the family of Dr. Stone, accompanied by a copy of these resolutions, herewith spread on the official minutes of this meeting of The Council."

MISCELLANEOUS

Woman's Auxiliary—A proposed Constitution and By-Laws for the Woman's Auxiliary to the Ohio State Medical Association, to be presented at the meeting to be held in Cincinnati at the time of the 1940 Annual Meeting of the State Association for the purpose of organizing an auxiliary, was presented by Dr. Hogue, chairman of the special committee of Council on this question. On motion by Dr. Hogue, seconded by Dr. Burley and carried, The Council approved the Constitution and By-Laws as presented and recommended that it be transmitted to those in charge of the auxiliary meeting in Cincinnati.

Corrective Amendments—Proposed Corrective Amendments to the Constitution and By-Laws of the State Association were discussed. (See page 306 this issue of *The Journal*. On motion by Dr. Sherburne, seconded by Dr. McNamee and

carried, the proposed amendments were approved by The Council and ordered transmitted to the House of Delegates for final action at the time of the Cincinnati Annual Meeting.

Columbus Amendments—Amendments adopted by the Columbus Academy of Medicine to the constitution of that society and submitted under date of December 13, 1939, to The Council for approval, were approved on motion by Dr. Hein, seconded by Dr. Burley and carried.

Liquor Advertising—A communication from an advertising agency regarding the placement of liquor advertising in *The Ohio State Medical Journal* was considered. On motion by Dr. Sherburne, seconded by Dr. Hogue and carried, The Council reaffirmed the present policy against accepting liquor advertising.

Pharmacopoeia Delegate—On motion by Dr. Skipp, seconded by Dr. Hogue, and carried, The Council instructed the Executive Secretary to respectfully request Dr. Clayton S. Smith, professor of pharmacology, College of Medicine, Ohio State University, to represent the State Association as official delegate at the U. S. Pharmacopoeial Convention to be held at Washington, D. C., starting May 14, 1940, when Dr. Smith also will serve as representative of the College of Medicine. The motion provided that the State Association should contribute \$50.00 toward Dr. Smith's expenses.

Pro Rata Dues—On motion by Dr. Sherburne, seconded by Dr. Goehring and carried, The Council authorized the prorating of dues for new members on the following basis: State Association dues for new members affiliating between July 1 and September 30—\$5.00; new members affiliating between October 1 and December 31—\$3.00.

Expenses Approved—On motion by Dr. Schriver, seconded by Dr. McNamee and carried, the Executive Secretary, the Assistant Executive Secretary, and the Director of the Bureau of Public Education were authorized to attend the 1940 Session of the American Medical Association, New York City, their expenses to be met from their regular budgetary expense allowances.

Named To Committee—Dr. Smith, the President, requested The Council to concur in the appointment of Dr. Ralph M. Watkins, Cleveland, as a member of the Committee on Public Relations and Economics to serve the unexpired term of the late Dr. Charles W. Stone, Cleveland, ending in the Spring of 1942. On motion by Dr. Sherburne, seconded by Dr. Beer, the appointment was confirmed.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Dr. Claude V. Davis Is Appointed To State Medical Board

Dr. Claude V. Davis, Pennsville, president of the Morgan County Medical Society, has been appointed a member of the State Medical Board by Governor John W. Bricker. Dr. Davis will complete the unexpired term of the late Dr. Lee Humphrey, Malta, serving until March 18, 1945. A native of Morgan County, his father was the



DR. DAVIS

late Dr. Miles B. Davis, a graduate of Starling Medical College. After graduating from the Clarksburg High School, Dr. Davis attended Ohio University, Athens, and later taught in the public schools for several years. He then entered Ohio State University College of Medicine, from which he graduated in 1917.

After completing an internship and residency at St. Luke's Hospital, Cleveland, Dr. Davis was commissioned a first lieutenant in the Medical Corps of the United States Army, and during the World War served nearly a year overseas at Base Hospital 123 in the Mars Hospital Center. Upon his return from the war, he located at Pennsville, where he has since engaged in general practice.

Dr. Davis, an active member of the Morgan County Medical Society and the Ohio State Medical Association, also is a Fellow of the American Medical Association. He is a member of the staff of Memorial Hospital, Marietta, and is identified with the American Legion and several other fraternal organizations. He was married in 1918 to Miss Laura Sheridan, a teacher in the Cleveland Public Schools. They have two sons, Claude, aged 15 and Galen, aged 12.

Clinics for Medically Indigent

The Out-patient Department of the Youngstown Hospital was reopened February 1 at the South Side Unit, after a lapse of six years. Only medically indigent patients not on relief will be accepted for treatment. Under the present arrangement, each case for admission must present a note from the family physician stating that the case is worthy of admission. In cases where patients do not bring notes they will be referred back to the family physician for treatment or for a recommendation for admission. Clinics will be operated in the following 16 branches: general medicine; general surgery; eye; nose, ear and throat; orthopedics; genito-urinary; thyroid; psychiatry and neurology; proctology; pediatrics; dermatology; cardiology; neurosurgery; tuberculosis; thoracic surgery and prenatal obstetrics.

Hotel Reservations for 1940 Annual Meeting, May 14-16, Should Be Made Now; Important Information Listed

PHYSICIANS who are planning to attend the Ninety-Fourth Annual Meeting of the Ohio State Medical Association at the Netherland Plaza, Cincinnati, Tuesday, Wednesday and Thursday, May 14-16 should reserve hotel accommodations **NOW**. Cincinnati has many fine hotels with splendid facilities, but in order to obtain the type of room required, members are advised to make reservations immediately. The Netherland Plaza, one of the most beautifully equipped hotels in the country, has been designated as the Headquarters Hotel. Sessions of the House of Delegates, scientific sessions, section meetings and round-table conferences will be held there. It will also house the scientific and technical exhibits.

Requests for reservations should be addressed directly to the management of the hotel selected, preferably on the attached reservation blank.

Following is a list of Cincinnati hotels, their location and room rates:

NETHERLAND PLAZA (Headquarters Hotel). Fifth and Race Sts. Single, \$3.00-\$10.00; double, \$5.00 to \$30.00

HOTEL GIBSON, Fifth and Walnut Sts. Single, \$2.50-\$5.00; double, \$4.00-\$7.00; parlors, \$12.00.

HOTEL SINTON, Fourth and Vine Sts. Single, \$2.50-\$5.00; double, \$4.00-\$6.00; suites, \$6.00-\$10.00.

HOTEL ALMS, McMillan and Victory Parkway. Single, \$3.50 and up; double \$5.00 and up.

HOTEL BROADWAY, Fourth and Broadway. Single, \$2.50 and up; double, \$3.50 and up.

HOTEL FOUNTAIN SQUARE, Fifth and Vine Sts. Single, \$2.50-\$3.00; double, \$3.50-\$4.00.

HOTEL KEMPER LANE, Kemper Lane and McMillan Sts. Single, \$2.50 and up; double, \$4.00 and up.

MARIEMONT INN, Wooster Pike and Madisonville Road. Single, \$1.75 and up; double, \$3.00 and up.

METROPOLE HOTEL, 609 Walnut St. Single, \$2.25-\$3.50; double, \$4.00-\$5.00.

PALACE HOTEL, Sixth and Vine Sts. Single, \$1.50-\$3.50; double, \$2.50-\$5.00.

HOTEL PARKVIEW, 108 Garfield Place. Single, \$2.50 and up; double, \$3.50 and up.

VERNON MANOR HOTEL, Oak and Burnet Avenues. Single, \$2.50 and up; double, \$3.50 and up.

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager _____ Hotel, Cincinnati, Ohio

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, May 14-16, 1940, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price: _____
☐ Twin Bed Room with bath ☐ Suite

Arriving May _____ at _____ A.M. _____ P.M.

PLEASE VERIFY MY RESERVATION.

Name _____

Address _____

Distinguished Guest Speakers Will Address Ninety-Fourth Annual Meeting at Cincinnati, May 14, 15 and 16

ONE of the many features of the Ninety-Fourth Annual Meeting of the Ohio State Medical Association at the Netherland Plaza, Cincinnati, Tuesday, Wednesday and Thursday, May 14-16, is the list of talented out-of-state guest speakers. Five distinguished physicians chosen by the Committee on Scientific Work because of outstanding accomplishments in their respective fields will address the General Sessions and a sixth has been invited by the Section on Eye, Ear, Nose and Throat to address that section. A brief biographical sketch of each of the guest speakers follows:

* * *

Dr. Richard B. Cattell, Boston, Mass., surgeon to the Lahey Clinic, New England Deaconess, New England Baptist and other hospitals, will address the First General Session, Tuesday evening, May 14, from 8 to 9 o'clock on "The Management of Cancer of the Large Intestines". A graduate of Harvard University Medical School in 1925, Dr. Cattell is a member of the Massachusetts Medical Society; Fellow of the American Medical Association and the American College of Surgeons; a founder member of the American Board of Surgery; member of the Boston Surgical Society and of the New England Surgical Society.

* * *

"The Role of Small Intestinal Intubation in the Treatment of Intestinal Obstruction and in the Diagnosis of Obstructing Lesions", will be discussed by **Dr. W. Osler Abbott**, Philadelphia, Pa., at the First General Session, Tuesday evening, May 14, from 9 to 10 o'clock. Associate in medicine at the University of Pennsylvania School of Medicine, Dr. Abbott graduated at that institution in 1928. He is physician to the gastro-intestinal section of the University of Pennsylvania Hospital. Dr. Abbott is a member of the Medical Society of the State of Pennsylvania; Fellow of the American Medical Association, the Philadelphia College of Physicians; and the American Gastro-Enterological Association; member of the American Society for Clinical Investigation, American Clinical and Climatological Association, Philadelphia Pathological Society and the Philadelphia Physiological Society.

* * *

Dr. C. Guy Lane, Boston, Mass., clinical professor of dermatology, Harvard University Medical School, will address the Third General Session, Wednesday evening, May 15, from 8 to 9 o'clock on "The

Criteria for the Diagnosis of Occupational Skin Disease". A graduate of Harvard University Medical School in 1908, Dr. Lane is chief of the department of dermatology, Massachusetts General Hospital and consultant to numerous other hospitals. He is a member of the Massachusetts Medical Society; Fellow of the American Medical Association; member of the American Dermatological Association, American Academy of Dermatology and Syphilology, New England Dermatological Society, Society for Investigative Dermatology and the American Board of Dermatology and Syphilology.

* * *

Second speaker at the Third General Session, Wednesday evening, May 15, will be **Dr. Ralph R. Mellon**, director of the Institute of Pathology, Western Pennsylvania Hospital, Pittsburgh, who is scheduled to discuss "Clinical and Experimental Aspects of the Mode of Action of Sulphanilamide-Sulphapyridine Compounds". A graduate of the University of Michigan Homeopathic Medical School in 1909, Dr. Mellon was associate professor at the University of Michigan from 1909 to 1916. The following year he graduated from the School of Public Health at Harvard University Medical School. Dr. Mellon was formerly director of laboratories at Highland Hospital, Rochester, N. Y. He is at present director of the Pneumonia Research Fund of the Mellon Institute of Industrial Research at the University of Pittsburgh. Dr. Mellon is a member of the American Society of Immunologists, American Association of Pathologists and the Society of American Bacteriologists.

* * *

Dr. Ralph M. Waters, professor of anesthesia, University of Wisconsin Medical School, Madison, Wis., will speak on "Respiration and the Treatment of Pain", at

the Fourth General Session, Thursday afternoon, May 16, from 1:30 to 2:30 o'clock. A native of Austinburg, Ashtabula County, Ohio, Dr. Waters graduated at Western Reserve University School of Medicine in 1912. He is chief anesthetist at the State of Wisconsin General Hospital, Madison, Wis. Dr. Waters is a member of the State Medical Society of Wisconsin; Fellow of the American Medical Association; member of the American Society of Anesthetists, Inc.; honorary member of the Royal Society of Medicine Section of Anesthetics, London, England, and the Australian Society of Anesthetists.

* * *

Guest speaker at the meeting of the Section on Eye, Ear, Nose and Throat, Wednesday morning, May 15, at 9:30 o'clock will be **Dr. Thomas C. Galloway**, assistant professor of otolaryngology, Northwestern University Medical School, Evanston, Ill., who will discuss the subject: "Laryngeal Emergencies, Especially Laryngotracheobronchitis". A graduate of Rush Medical College, Chicago, in 1912, Dr. Galloway is chief of the Division of Otolaryngology, Evanston Hospital and attending otolaryngologist at the Cook County Hospital clinics, Chicago. He is a member of the Illinois State Medical Society; Fellow of the American Medical Association; member of the American Laryngological Association, American Otolological Society, American Academy of Ophthalmology and Otolaryngology and the American Laryngological, Rhinological and Otolological Society.

Mahoning County Medical Society To Hold Postgraduate Day, April 24

The Annual Postgraduate Day of the Mahoning County Medical Society will be held at the Ohio Hotel, Youngstown, Wednesday, April 24. The faculty will be four members of the staff of Johns Hopkins University School of Medicine, Baltimore, Md., namely, Dr. Warfield M. Firor, chief of surgery; Dr. Richard W. TeLinde, professor of gynecology; Dr. Benjamin M. Baker, associate in medicine, and Dr. Lloyd G. Lewis, chief of genito-surgery. Subjects to be discussed follow: "The Causes of Post-Menopausal Bleeding", Dr. TeLinde; "The Effect of Treatment of Headache", Dr. Baker; "The Neurological Diseases of the Urinary Bladder", Dr. Lewis; "Practical Aspects of Endocrinology", Dr. TeLinde; "Consideration of Acute Circulatory Collapse", Dr. Baker; "Urological Significance of Hematuria", Dr. Lewis; "The Prevention and Treatment of Tetanus, with Special Emphasis on the Use of Toxoid", Dr. Firor.

Two Amendments To Constitution and By-Laws To Be Voted on at 1940 Annual Meeting

At a meeting of The Council of the Ohio State Medical Association on February 18, 1940, a resolution containing two proposed corrective amendments to the Constitution and By-Laws of the Association was adopted.

The proposed changes, reading as follows will be submitted by The Council to the House of Delegates at the 1940 Annual Meeting, May 14-16, Cincinnati:

1. In Article 7, Sec. 4 of the Constitution strike out the "comma" at the end of the word "years" in line 5 and insert in lieu thereof a "period". Strike out the remainder of line 5, namely, "five to be", and the first part of line 6, namely, "elected each year"; inserting in lieu thereof the words "Councilors of the odd numbered districts shall be elected at annual meetings held in even numbered years." That portion of Article 7, Sec. 4 thus amended would then read as follows:

"The term of office of Councilors shall be for two years. Councilors of the odd numbered districts shall be elected at annual meetings held in even numbered years."

2. In Chapter 5, Sec. 1 of the By-Laws delete the words "ten delegates, one" in the fourth line and insert in lieu thereof the words "one delegate". That part of Section 1 would then read as follows:

"Committee on Nominations. On the first day of the annual meeting the House of Delegates shall elect a Committee on Nominations, consisting of one delegate from each councilor district."

The reason for these changes is as follows: At the 1939 Annual Meeting of the Ohio State Medical Association in Toledo, the House of Delegates amended the Constitution and By-Laws and then created an additional councilor district, making a total of 11 districts. The above amendments are necessary to make certain parts of the Constitution and By-Laws consistent with the action of the House of Delegates.

Academy Sponsors Health Lectures

The tenth annual series of free public health lectures, known as "The Holden Lectures in Medicine", is being presented again this year in the Allen Memorial Medical Library Auditorium, Cleveland. On February 11, Dr. H. C. Rosenberger spoke on "Sense and Nonsense About Sinuses", and on February 25, Dr. C. E. Kinney discussed "Conserving Your Hearing". Dr. Paul T. Moore will speak on "The Changing Eye" on March 10. These popular Sunday afternoon lectures are offered to the public under the auspices of The Academy of Medicine of Cleveland, the Albert Fairchild Holden Foundation of Western Reserve University and the Cleveland Medical Library Association.

Hospital Building Proposal Awaiting Hearings Before Two Congressional Committees; Provisions Are Analyzed

PUBLIC hearings may be expected shortly on two bills pending before the United States Congress which are of vital concern to the medical profession.

They are companion bills, S. 3230, sponsored by Senator Wagner of New York, and H.R. 8240, introduced by Representative Lea of California, both proposing to make effective President Roosevelt's plan for the construction of hospitals in communities where the need for such institutions exist. The plan was described in the February issue of *The Ohio State Medical Journal*.

Senator Wagner's bill was referred to the Senate Committee on Education and Labor of which Senators Donahey and Taft of Ohio are members. The Lea bill was referred to the House Committee on Interstate and Foreign Commerce of which Representative Clarence J. Brown, Blanchester, is a member.

COMMENTS OF A.M.A.

In an editorial in its February 10 issue, *The Journal of the American Medical Association* hails both the hospital building program proposal and the message sent to Congress by President Roosevelt on the project as a recognition of the local character of most problems of medical need, "something which has been lacking in other medical or hospital legislative proposals in recent years".

However, the same editorial pointed out some desirable clarifications and revisions in the proposal, the editorial reading in part as follows:

"Here is a new pattern not observable in other medical or hospital legislation introduced in recent years. This measure provides for assisting state, county, health and hospital districts or other political subdivisions; thus it recognizes the local character of most problems in medical service. The total sum involved is relatively small, indicating the experimental nature of the proposal. The third section indicates that communities applying for such hospitals must establish the existence of need. Moreover, these hospitals are to be available to all groups of the population.

"Especially significant is section 4, which establishes a national advisory council to consist of six members, who shall be selected from leading medical or scientific authorities outstanding in matters pertaining to hospitals and other public health services. These six members are to be appointed by the Surgeon General with the approval of the Federal Security Administrator. These offices are largely honorary, since the compensation is \$25 a day and expenses. Their services are wholly advisory, but obviously their opinions are likely to have considerable weight with the officials primarily responsible for carrying out the work. Indeed, the advisory council is charged with considering and recommending to the Sur-

geon General all applications for funds for building hospitals. It is to formulate standards, review reports and make inspections relative to professional services and the standard of maintenance of the hospital. In this connection the Surgeon General is also authorized, after consultation with the council, to study needs for hospitalization and problems of hospital operation, to approve projects in the hospital field, to provide for training and instruction of personnel, to make inspection and reports on professional services, and to safeguard the quality of service.

"The hospitals are to be leased to the communities in which they are established, the only consideration for the lease being the maintenance and operation of the hospital in accordance with the provisions of the act. It is indicated that the lease may be terminated by the Surgeon General on six months' notice if the hospital fails to comply with the provisions of the act. Apparently nothing is said as to what will be done with a hospital in case the lease is terminated.

"In section 10, hospitals are authorized to include physical facilities necessary not only for the prevention and diagnosis or treatment of disease but also for protection of the public health. Thus it becomes possible to establish health protecting agencies within the structure of the hospital. The divergence of opinions on the desirability of this integration of public preventive medical services into private or community hospitals demands careful consideration before the final wording is determined.

"Obviously this bill, if enacted, will place a tremendous responsibility on the Surgeon General of the United States Public Health Service and the Federal Security Administrator. The location and conduct of these new medical institutions is a matter which will concern greatly not only the public but particularly the medical profession and all who work in the field of the hospital. Perhaps, therefore, it might be better to assign a little larger share of responsibility and control to the Advisory Council. Moreover, the language of the act is somewhat confusing in that certain phrases fail to specify clearly the fact that these clauses apply only to the hospitals to be built under the act and do not concern inspection, training of personnel, or control of hospitals and medical services generally."

ANOTHER PROPOSAL

About the time the Wagner and Lea bills were introduced, Senator Mead of New York presented a proposal, S. 3246, to authorize loans for hospitals, water, sewers, stream pollution control, and related projects and facilities. It proposes a Federal appropriation of \$300,000,000, of which \$100,000,000 is to be used for hospital projects. Competent observers point out that the Mead bill probably will not be given serious consideration because of its cost and because it duplicates many provisions of the Wagner and Lea proposal. The latter bill calls for an appropriation of \$10,000,000 which, according to President Roosevelt's

estimates, would cover the cost of building and equipping 50 hospitals of 100 beds each.

The following quotations from the President's message to Congress on the Wagner-Lea proposal are of interest:

PRESIDENT'S VIEWS

"Conditions described a year ago are substantially unchanged today. There is still need for the Federal Government to participate in strengthening and increasing the health security of the nation. Therefore I am glad to know that a committee of the Congress has already begun a careful study of health legislation. It is my hope that such study will be continued actively during the present session, looking toward constructive action at the next. I have asked the Interdepartmental Committee to Coordinate Health and Welfare Activities to continue its studies. In order that at least a beginning may be made I now propose for the consideration of the Congress a program for the construction of small hospitals in needy areas of the country, especially in rural areas, not now provided with them. ***This is not an ambitious project. This principle should not be extended to government gifts to communities which are financially able to build their own hospitals. It is an experiment in the sense that the nation will gain much experience by undertaking such a project."

At a meeting of The Council of the Ohio State Medical Association on February 18, the hospital building plan was considered. Pending receipt of additional information and study, The Council did not commit itself as for or against S. 3230. However, it did adopt a resolution requesting the American Medical Association to recommend an amendment to the proposal which would provide that county and state medical societies shall be consulted during investigations of the needs for any hospital which may be requested by political subdivisions of any state.

REACTIONS OF HOSPITALS

Early reactions of hospital organizations to the program are of interest. *Hospitals*, the official publication of the American Hospital Association, in reviewing the proposition stated that "the hospital field will commend and support the President's program as long as it does not widely depart from his stated purposes".

Some pertinent points regarding the program were raised by *Modern Hospital*, an independent publication, in its February issue, including the following:

To the hospital field, a 100-bed hospital is a substantial structure and there "are few, if any, areas able to support a 100-bed hospital that are at present without some kind of hospital service, however inadequate".

"Might it not be better to improve these existing facilities or at least the better ones among them, rather than to make it impossible for them to operate?"

"If the President had suggested the construction of 10, 20 or 30-bed hospitals, his proposal

would have been more in line with the thinking of careful students."

Institutions built at a cost of \$1,500 per bed "would have to be admittedly incomplete in facilities and services". The country does not need "more low grade institutions".

"Must the price for Federal aid be complete Federal control and competition with local hospitals? Such a price seems excessive and unnecessary."

America's voluntary hospitals have suffered because of the extensive construction of veterans' hospitals and the opening of their facilities for the care of disabilities that did not result from service-connected injuries.

Areas too poor to construct needed hospitals will find it difficult to maintain them without aid. The Federal Government will find it difficult to "let go" once a hospital is built. Areas which have done little to help themselves would be assisted while others with only slightly higher income would receive nothing.

Will the advisory council be composed of "physicians with broad experience and sound judgment in hospital administration"?

What effect the hospital building program will have on the fate of the Wagner National Health Bill, introduced at the last session of the Congress and opposed by the medical profession, is problematical. Some Washington observers believe it will be permitted to die because the President apparently has withdrawn personal support for it and because of the economy drive sponsored by a substantial bloc in the Congress.

Plans Started for Organization of Medical Library in Toledo

Definite plans have been started in Toledo for the establishment of the Toledo Medical Library Association, which was incorporated in 1939. A constitution was recently adopted, and memberships are now being solicited.

The Association plans to provide a medical library, together with a building to house it when the opportunity of having such a building seems advisable. It is anticipated that working agreements will be arranged with other medical libraries and with publishers of medical literature so as to secure regularly all medical publications for review.

An effort will be made to supplement and coordinate the existing facilities in private, public and hospital libraries, rather than duplicate them. Toledo has a vast medical library spread throughout many units and it is hoped that these may be made available to the Academy members through a centralized filing system.

Physicians who are interested in the project feel that a sufficient number of the members of the Toledo Academy are interested in the Library to make it an active and worth-while activity.

Group Medical Service Plans To Be Discussed at Series of District Meetings Authorized by The Council

A SERIES of district meetings, at least one meeting in each of the 11 Councilor Districts of the Ohio State Medical Association, will be held this Spring by the State Association for the purpose of providing an opportunity for discussions of group medical service plans.

The plan for such conferences was approved by The Council of the State Association on February 18. The meetings will be under the direction of members of The Council and members of the Committee on Medical Service Plans who are: Dr. David A. Tucker, Jr., Cincinnati, chairman; Dr. Ralph M. Watkins, Cleveland; Dr. Jonathan Forman, Columbus; Dr. Fred M. Douglass, Toledo; Dr. Dow Allard, Portsmouth; Dr. G. A. Woodhouse, Pleasant Hill; Dr. Carl R. Damron, Mansfield, and Dr. Robert T. Allison, Jr., Akron.

Centers for the district meetings and the time for such meetings are under consideration by members of The Council and members of the committee. An announcement as to time and place will be made in the near future.

Those who will be invited to attend the conference will include the presidents, secretaries, legislative committeemen, delegates and medical economics committeemen of county medical societies.

MEMBERS MUST BE INFORMED

The primary purpose of the meetings is to acquaint officers and important committeemen of county medical societies with activities being carried on by several of the larger medical societies in Ohio, notably Toledo, Cincinnati and Cleveland, looking toward organizing group medical service plans under the control of the medical profession to provide low-wage earners with prepaid medical services. Also, similar activities in other states, in some of which group medical service plans now are in operation, will be reviewed by members of the Committee on Medical Service Plans.

At the contemplated meetings, speakers will summarize the arguments presented by proponents of group medical service plans; explain how such plans would help to meet the problems confronting low-wage earners in some communities and be beneficial to physicians, as well; analyze the basic principles on which such plans must be formulated; describe how such plans would operate; and point out necessary steps, including legal action, which must be taken be-

fore such plans can be started in certain communities in Ohio on an experimental basis.

RESPONSIBILITY OF OFFICERS

Officers and committeemen attending these meetings will be expected subsequently to head up an educational program among the members of their own county medical societies so that as many members of the State Association as possible can familiarize themselves with this new activity in medical economics.

Plans are under way to bring the question to the attention of the House of Delegates at the 1940 Annual Meeting, May 14-16, at Cincinnati. For that reason, The Council is anxious to give all members, and especially delegates, an opportunity to become acquainted with this subject.

Both The Council and the Committee on Medical Service Plans believe that group medical service plans should be inaugurated **only in counties where there is a need for such plans and where the medical profession desires to start such plans on an experimental basis.** Discretion in this matter will rest with the local medical society.

On the other hand, The Council and the committee realize that the majority of the members of the State Association must take an active interest in supporting the movement in principle to insure success of plans which may be set up in counties where the medical profession desires to do so. Support of the profession will be especially important should the General Assembly be requested to enact enabling legislation, members of the Committee on Medical Service Plans have pointed out. The committee has stated that even though many counties may not need or desire a group medical service plan, the physicians of those counties should actively support the movement in order to assist the medical profession in counties where such a plan is needed and desired, especially lending support to efforts to obtain proper enabling legislation.

THE FIRST STEP

Education of the medical profession relative to the need for medical service plans in some communities of the state and how such plans would operate is believed by the Committee on Medical Service Plans to be the first essential step in the work of the committee. The Council has concurred in that opinion and has authorized the holding of the district conferences referred to as a medium through which appropriate information can be placed into the hands of the key-men of the various county medical societies.

Members who have not done so should read

articles which have been published in recent issues of *The Ohio State Medical Journal*, especially an article written by Dr. Douglass regarding progress in Toledo on the matter of organizing a medical service plan and published in the July, 1939, issue, pages 769-772, and articles on the Michigan Medical Service Plan, published in the December, 1939, issue, pages 1341-1343, and the January, 1940, issue, pages 85-86. Additional citations in the 1939 volume of *The Journal* which should be read are as follows: February, page 195; March, pages 314 and 319; April, 412 and 416; May, page 547; July, page 764; and October, page 1136.

Dr. Follansbee Named Honorary Member of Cleveland Academy of Medicine

As a token of the esteem in which he is held by his colleagues, Dr. George Edward Follansbee has been named an honorary member of The Academy of Medicine of Cleveland by action of its Council and Board of Directors. Since his graduation from Western Reserve University School of Medicine in 1895, Dr. Follansbee has had a distinguished career as a surgeon and as a "wheel-horse" in medical organization. He has served the Cleveland Academy in many capacities, including the presidency in 1918. Five times a member of the House of Delegates of the Ohio State Medical Association, and member of The Council for two years, Dr. Follansbee was President of the Association in 1924. He was chairman of the Building Committee which supervised the erection of the Allen Memorial Medical Library at Cleveland, and was President of that Association in 1931. For 12 years Dr. Follansbee was a member of the House of Delegates of the American Medical Association. From 1927 to 1932 he was a member of the Committee on Costs of Medical Care, and was largely responsible for the Committee's minority report which expressed the sentiments of a majority of the physicians of the country. Dr. Follansbee has been a member of the Judicial Council of the A.M.A. for 14 years, and at present is chairman of that important body.

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. William R. Hutchinson, III, Athens; Dr. Avery D. Powell, Findlay; Dr. G. W. Speed, St. Marys; Dr. J. K. Fleisch, Newark; Dr. Walter H. Angerman, Wooster; Dr. E. P. Sparks, Sr., New Knoxville; Dr. Peter P. Palsis, Cleveland; Dr. Arnold D. Piatt, Newark; Dr. O. H. Bridge, Mt. Healthy.

How Old-Age Pensioner May Get Medical, Hospital Care is Clarified

Responsibility for the payment of the hospital costs and costs of medical care of old-age pensioners who are hospitalized was clarified by Attorney-General Thomas J. Herbert in Opinion No. 1633, issued December 30, 1939, in answer to a request from the prosecuting attorney of Marion County.

The question arose in the case of a Marion pensioner needing medical care and hospitalization, when the City of Marion and Marion County both refused to pay the medical and hospital expenses, and the Division of Aid to the Aged threatened to cancel his pension without any reason so that he would become either a city or county charge.

On the question of the payment of medical and hospital costs, Herbert held that it was the duty of the Division of Aid to the Aged to pay up to \$30 a month for medical care and hospitalization during the time the pensioner was a patient in the hospital; that the portion of the cost in excess of \$30 per month for hospitalization must be paid by the proper city or township authorities, depending upon the legal settlement of the pensioner under the poor relief statutes; and that the amount in excess of \$30 necessary to pay for medical expense must be borne by the local relief area in accordance with the provisions of Sections 3391-1 to 13, inclusive, (House Bill 675—the Poor Relief Act enacted at the last session of the legislature).

Syllabus of the opinion follows:

1. It is the duty of the Division of Aid for the Aged, when the recipient of aid is a patient in any private charitable, fraternal or benevolent home or institution, other than a state institution, to pay within the limit of Section 1359-3, General Code, the reasonable cost of such maintenance, including medical services and such payment shall be made to the governing body of such institution.

2. When the total cost of such maintenance exceeds thirty dollars per month, then the amount in excess of thirty dollars must be borne, in so far as medical expenses are concerned, by the local relief area under Section 3391-1 to 3391-13, inclusive, General Code, and the hospitalization costs must be borne by the proper city or township authorities, depending upon the legal settlement of the person, under the poor relief statutes, Section 3476 to 3496, inclusive, General Code.

3. A pension may not be cancelled without cause, and if a cancellation does occur, a recipient whose aid has been cancelled may appeal from the action of the local subdivision to the Division of Aid for the Aged, and upon the filing of an appeal the recipient must be given a prompt and fair hearing.

Program Announced for Annual Post-Collegiate Assembly, College of Medicine, Ohio State University, March 29-30

NOW in its 106th year of continuous charter existence, the Ohio State University College of Medicine is presenting its Seventh Annual Post-Collegiate Assembly at Columbus, Friday and Saturday, March 29 and 30. All Ohio physicians are cordially invited to attend.

Members of the faculty will conduct a series of symposiums and round-table conferences running concurrently on the opening day, together with a special course on "Anemic States," under the auspices of the American College of Physicians.

The Alpha Omega Alpha lecture Friday evening will be given by Dr. Haven Emerson, New York, noted public health lecturer and teacher, and director of the DeLamar Institute of Public Health of the College of Physicians and Surgeons of Columbia University. His subject, "Preventive Medicine, Personal and Public", will be of interest to the members of the medical profession, public health workers and the general public. Dr. Emerson is a former health director of New York City, and a former president of the American Public Health Association. He has conducted many public health surveys in this country and abroad. During the hearings of the Sub-Committee of the United States Senate Committee of Education and Labor last May on the Wagner National Health Bill, Dr. Emerson appeared in opposition to that bill.

OTHER FEATURE EVENTS

A number of guest speakers, graduates or former students of Ohio State University, now members of medical faculties elsewhere, will appear on the program, Saturday, March 30. Other features on that day will be a talk by Dean J. H. J. Upham on "An Interpretation of Current Research at Ohio State University"; an address of welcome by Dr. Howard L. Bevis, new president of the University; "Survey of the Ohio Public Health Situation", by Dr. Roll H. Markwith, State Director of Health; and an Alumni Luncheon at Pomerene Hall, to which guests are welcome. Several class reunions are being arranged for Friday evening, and fraternity banquets are scheduled for Saturday evening.

The committee in charge of the assembly consists of Dr. Russel G. Means, chairman; Dr. Jonathan Forman, secretary-historian; Dr. V. A. Dodd, Dr. C. A. Doan, Dr. I. B. Harris, Dr. Herbert M. Platter, Dr. N. Paul Hudson, Dr. Grant O. Graves, Dr. Robert C. Kirk and Dr. P. I. Knies.

The complete program follows:

FRIDAY, MARCH 29

Hamilton Hall—Medical College Building
Room 312

SYMPOSIUMS

9:00 A.M.—Chemo-Therapy

1. In general Medicine—Dr. Max A. Hammel, Chairman.
2. In Gynecology—Dr. Zeph R. Hollenbeck.
3. In Eye, Ear, Nose and Throat—Dr. Harold D. Waltz.
4. In Urology—Dr. Reginald A. Hancock.
5. Blood Findings—Dr. Emma H. Boyle.

10:00 A.M.—Asthmatic States

1. Importance of Infected Nasal Sinuses—Dr. Hugh G. Beatty.
2. Classification of Asthma in Relation to Prognosis—Dr. Clark P. Pritchett.
3. Movements of the Diaphragm as a Guide to Prognosis—Dr. John H. Mitchell.
4. Aminophyllin—Its Uses, Limitations and Manner of Action—Dr. Wm. F. Mitchell.
5. Treatment—Dr. Jonathan Forman, Chm.

11:00 A.M.—Pneumonia

1. Diagnosis—Dr. Lear H. VanBuskirk.
2. Typing—Dr. Harry L. Reinhart.
3. Heart in—Dr. Robin C. Obetz.
4. Treatment—Dr. Clifford C. Sherburne.
5. Summary—Dr. Sol A. Hatfield, Chairman.

12 Noon—Lunch period—Alumni of Fraternities invited to house luncheons.

1:00 P.M.—Roadside Injuries

1. First Aid—Dr. Drew L. Davies.
2. Fractures—Dr. Judson D. Wilson.
3. Intra Cranial Lesions—Dr. Harry E. LeFever.
4. Shock Treatment—Dr. Paul H. Charlton.
5. Internal Injuries—Dr. John W. Means, Chm.

2:00 P.M.—Premature Labor and Abortions Dr. Charles W. Pavey, Chairman.

1. Causes—Dr. Herman W. Koerper.
2. Signs, Symptoms and Diagnosis—Dr. Thomas Ross.
3. Prevention and Treatment—Dr. Dana W. Cox.
4. Complications—Dr. J. Clyde Vanneter.
5. Precautions in Delivery and Care of Premature Infants—Dr. Andrews Rogers.

3:00 P.M.—Acute Rheumatic Fever Dr. Earl H. Baxter, Chairman.

1. Etiology—Dr. Oram C. Woolpert.
2. The Heart in—Dr. Ruth A. Koons.

3. Diagnosis—Dr. Samuel D. Edelman.
 4. Other Manifestations—Dr. Marion L. Ainsworth.
 5. Treatment—Dr. John E. Brown, Jr.
- 4:00 P.M.—Diabetic States
1. Etiology and Diagnosis—Dr. James R. Reeves.
 2. Dietary Management — Dr. Norman O. Rothermich.
 3. Insulin—Dr. Max P. Kanter.
 4. Treatment Complications—Dr. Robert C. Kirk.
 5. Summary—Dr. George I. Nelson, Chairman.

FRIDAY, MARCH 29

Hamilton Hall—Medical College Building
Room 211

ROUND-TABLES

- 9:00 A.M.—Fracture Problems
Dr. E. Harlan Wilson.
(Physicians invited to bring in X-ray pictures.)
- 10:00 A.M.—Clinical Manifestations of Diseases of the Thyroid Gland—Dr. George M. Curtis.
- 11:00 A.M.—Problems in Diagnosis of Cancer of the Cervix—Dr. Edwin J. Stedem.
- 12 Noon—Lunch period—Alumni of Fraternities invited to house luncheons.
- 1:00 P.M.—Diagnosis and Treatment of Renal Disease—Dr. Wm. N. "Jack" Taylor.
- 2:00 P.M.—The Acute Delirious Patient; Reaction to Drugs; Febrile Conditions; Acute Mania and Other Excitement States; Differential Diagnosis; Treatment—Dr. George T. Harding and Dr. Harrison S. Evans.
- 3:00 P.M.—Symposium: Climacterim and Menopause.
1. Gynecological Symptoms and Diagnosis—Dr. Tom F. Lewis.
 2. Clinical Manifestations — Dr. Robert H. Schoene.
 3. Laboratory Diagnosis—Dr. Emmerich von Haam.
 4. Stilbesterol Treatment in Menopause—Dr. Thomas E. Rardin.
 5. Management—Dr. Philip J. Reel, Chm.
- 4:00 P.M.—Seminar on Anemic States—(University Hospital with F.A.C.P.) — Dr. Charles A. Doan, Dr. Bruce K. Wiseman, Dr. Carl V. Moore, Dr. Ben C. Houghton.

POSTGRADUATE SURVEY OF THE HEMATOLOGIC DISEASES

Under the Auspices of

The American College of Physicians

Department of Medicine, Division of Research
Medicine

FRIDAY, MARCH 29

University Hospital, Lecture Room

ANEMIC STATES

- 9:00 A.M.—Erythropoietic Equilibrium during Pregnancy and Infancy—Dr. Carl V. Moore, Washington University School of Medicine, St. Louis.
- 10:00 A.M.—Erythroblastosis (Cooley's Anemia); Sick Cell Anemia—Dr. Bruce K. Wiseman.
- 11:00 A.M.—Addisonian Pernicious Anemia and "Pernicious Anemia" of Pregnancy—Dr. Charles A. Doan.
- 12 Noon—Liver Fraction Testing and the Basis for the Establishment of an Optimum E.M.F. Dosage for Ind. Patient—Dr. Benjamin C. Houghton.
- 2:00 P.M.—Other Macrocytic Anemias; Tropical Sprue, Hypothyroid States, Vit. "C" Deficiency Coeliac Disease—Dr. Bruce K. Wiseman.
- 3:00 P.M.—The Porphyrins and Erythropoiesis—Dr. Carl V. Moore.
- 4:00 P.M.—Seminar on Anemic States—(University Hospital Lecture Room)—Dr. Charles A. Doan and staff.

FRIDAY EVENING, MARCH 29

ALPHA OMEGA ALPHA

Annual Lecture

- 8:00 P.M.—University Chapel—Old Main Building—"Preventive Medicine, Personal and Public"—Dr. Haven Emerson, Columbia University, College of Physicians and Surgeons, New York, Professor of Public Practice, DeLamar Institute.
- 9:00 P.M.—Class Reunions.

SATURDAY, MARCH 30

Campbell Hall Auditorium

- 10:00 A.M.—"Interpretation of Current Research at Ohio State University"—Dr. J. H. J. Upham, Dean O. S. U. College of Medicine.
- 10:30 A.M.—"Surgical Problems of the Gallbladder and Extrahepatic Bile Ducts"—Robert Zollinger, A.B. '25; M.D. '27, associate professor of surgery, Harvard University Medical School, Boston, Mass.
- 11:15 A.M.—A Welcome from the new President of the University, Dr. Howard L. Bevis.
- 11:30 A.M.—"The Indications for Surgical Intervention in Peptic Ulcer from the Standpoint of the Internist"—Lee C. Gatewood, B.A. '07; M.A. '09; M.D. clinical professor of Medicine, Rush Medical College, Chicago.
- 12:15 P.M.—"Active Immunization to Tetanus by Means of Tetanus Toxoid"—George E. Rock-

well, B.S.; M.A.; M.D. (w.Ag. '17, Vet. '21), formerly asso. prof. of bacteriology, University of Cincinnati College of Medicine.

- 1:00 P.M.—Alumni Luncheon—Pomerene Hall. (Guests welcome.)
- 2:30 P.M.—“Survey of Ohio Public Health Situation”—Roll H. Markwith, M.D. '17, Director, State Department of Health.
- 3:00 P.M.—“Protamine and Other Slow Acting Insulins and Their Clinical Application”—John H. Warvel, M.D. '16, assistant in medicine, Indiana University College of Medicine, Indianapolis, and consultant on research to the Eli Lilly and Company.
- 3:30 P.M.—“Diagnosis and Treatment of Placenta Praevia” — Charles W. Mueller, B.S. '22, M.D. '24, assistant clinical professor, Long Island Medical College, Brooklyn, N. Y.
- 6:30 P.M.—Fraternity banquets.

Ninth District Meeting To Be Held March 7 at Jackson

Physicians of the Ninth Councilor District of the Ohio State Medical Association will gather at Jackson, Thursday, March 7, for a meeting at the Cambrian Hotel, starting with a noon luncheon. An excellent program has been arranged by the district officers, Dr. W. R. Riddle, Jackson, president; Dr. J. L. Frazer, Wellston, secretary, and Dr. I. P. Seiler, Piketon, Councilor. Special arrangements are being made for the entertainment for the wives of physicians accompanying them to the meeting. The complete program follows:

- 12 Noon—Luncheon.
- 1:00 P.M.—“Present Trends in Organized Medicine”, Dr. Parke G. Smith, Cincinnati, President, Ohio State Medical Association.
- 1:30 P.M.—Remarks by Charles S. Nelson, Columbus, Executive Secretary, Ohio State Medical Association.
- 1:45 P.M.—Business Meeting.
- 2:00 P.M.—“Role of the Endocrine in Gynecology”, by Dr. J. P. Pratt, Henry Ford Hospital, Detroit.
- 2:45 P.M.—Discussion lead by Dr. Anne Marting, Ironton.
- 3:00 P.M.—Intermission.
- 3:15 P.M.—“Problems in the Management of the Diabetic Patient”, by Dr. Daniel Foster, Henry Ford Hospital, Detroit.
- 4:00 P.M.—Discussion lead by Dr. Leo C. Bean, Gallipolis.
- 4:20 P.M.—Completion of organization business.
- 4:30 P.M.—Adjournment.

NEED MATERIAL FOR A SPEECH, DOCTOR? IF SO, WRITE THE HEAD- QUARTERS OFFICE AT COLUMBUS

Because of numerous requests which Ohio physicians are receiving to address lay groups on the question of “socialized medicine” and other topics in the general field of medical economics, the Bureau of Public Education of the State Association has assembled considerable material which will be helpful to members in preparing their talks.

In addition to reference material, the Bureau has on hand a prepared 30-minute address on this general subject. Members may obtain a copy for the asking. The address may be shortened or expanded to meet specific needs. Also, there is available a topical outline of this talk from which the physician-speaker may ad lib or speak extemporaneously.

A postcard or letter to the State Headquarters Office, Columbus, will bring you this material at once. Write for it if you can use it in your public speaking engagements.

Remember: The best way to put the message of the medical profession across is to use the speaker's platform often.

Report on Intoxication Tests

“Installing Tests for Intoxication”, is the title of the 1939 report of the Committee on Tests for Intoxication of the National Safety Council, recently off the press. The report explains how a scientific testing program can be set up in a city or state. It also contains information about recommendations made by committees of medical societies in dealing with the drinking driver problem. Members of the Safety Council's committee included Dr. S. R. Gerber, Cleveland, and Dr. Herman M. Gunn, Ashland. Physicians can obtain single copies of the report by writing the National Safety Council, 20 North Wacker Drive, Chicago.

State Hospital Physicians' Meeting

The Ohio State Hospital Physicians Association, consisting of all physicians and assistant physicians employed by the State Department of Public Welfare, will hold its semi-annual meeting at the Columbus State Hospital, Thursday and Friday, April 4-5. Details concerning the program can be obtained by addressing Dr. N. Michael, clinical director, Columbus State Hospital.

Do You Know - - -

The Council on Pharmacy and Chemistry of the American Medical Association published a revision of its statement on the actions, uses and dosage of sulfapyridine on page 327 of the January 27, 1940 issue of *The Journal of the A.M.A.*, and a statement on the actions, uses and dosage of sulfanilamide on page 326 of the same issue.

* * *

After payment of \$23,662,121.45 to Ohio workers in the form of Unemployment Compensation benefits during the year 1939, a balance remained in the Ohio fund of \$132,486,623.00 as of December 31, 1939.

* * *

Sponsors of the Bigelow Old Age Pension Plan are now engaged in redrafting and "correcting" the proposal which was so overwhelmingly defeated last November 7, with a view to again circulating petitions and attempting to amend the Ohio Constitution at the 1940 General Election.

* * *

A bill proposing a system of compulsory health insurance has been introduced in the Rhode Island legislature.

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Speakers at the Fourth Annual New Orleans Graduate Medical Assembly held at New Orleans, February 26-29 included two Ohioans: Dr. John A. Toomey, Cleveland, "Chemotherapy in Acute Infectious and Contagious Diseases", and Dr. William Mithoefer, Cincinnati, "What the General Practitioner Should Know Concerning the Nasal Accessory Sinuses".

* * *

Dr. Don W. Gudakunst, of the U. S. Public Health Service and formerly health commissioner of the State of Michigan, has been appointed medical director of the National Foundation for Infantile Paralysis.

* * *

Domestic servants in Italy must first pass medical examinations before entering service. The examinations are free and are repeated at specific intervals. Persons suffering from contagious infections are not permitted to work as domestic servants.

* * *

Construction will proceed in the Spring on the new Wesley Memorial Hospital, Chicago, on the down-town campus of Northwestern University. The hospital is to be 20 stories high and will have approximately 525 beds. The building has been made possible through the generosity of George Herbert Jones, a trustee of the hospital, whose gift will amount to more than \$3,000,000.

In a recent address on plastic surgery, Dr. Claire L. Straith, Detroit, told members of the Buffalo, N. Y., Academy of Medicine that the most horrible facial disfigurements today result from automobile accidents, adding that 80 per cent of those disfigured are passengers in the right front seat.

* * *

The U. S. Public Health Service held a special conference in Atlanta, Ga., February 13-14, to consider problems connected with syphilis control in the Southern states, where 65 per cent of all the syphilis in the United States is concentrated.

* * *

Broadcasting as a method of education of school children—particularly those with seriously defective vision, is advocated by Miss Olive S. Peck, Supervisor of Braille and Sight-Saving Classes, Cleveland, in a report on "The Radio in Sight-Saving Classes" published by the National Society for the Prevention of Blindness.

* * *

Dr. Howard Dittrick, editor of the *Bulletin of the Academy of Medicine of Cleveland*, has accepted the editorship of *Current Researches in Anesthesia and Analgesia*. The former editor was the late Dr. F. H. McMechan, Rocky River.

* * *

According to the National Tuberculosis Association, 63,332 persons died of tuberculosis in the United States in 1938, as compared with 69,292 in 1937, a decrease of nearly 6,000.

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Dr. H. M. Platter, Columbus, Secretary of the State Medical Board, addressed the annual meeting of the Federation of State Medical Boards at Chicago, February 12, on the subject, "The Philosophic Trend of Medical Practice Law".

* * *

Hospitals of Kenton, Lima, Findlay, Celina, Sidney and Bluffton have joined in the formation of the Northwest County Hospital Service Association, Inc., to provide hospitalization insurance for their respective communities.

* * *

Dr. Charles A. Doan, Columbus, chairman of the department of medicine, Ohio State University College of Medicine, has been elected president of the Central Society for Clinical Research.

* * *

According to the New York State Medical Journal, the oldest drug prescription known is a stone tablet of 3700 B.C. bearing directions for making an inhalant for treating a head cold.

Plans for 1940 Attack on Cancer Made by Ohio Women's Field Army; Help of All Physicians Solicited

AN active membership of 15,000, organization of a new district, and strengthening of its present organization and activities are among the goals for 1940 set-up by the Ohio Division of the Women's Field Army of the American Society for the Control of Cancer. Heavy guns in the state-wide campaign to save lives through education will begin firing in April, which has been set aside by congressional act as "National Cancer Control Month," and the drive for increased enlistment and support will continue through the balance of the year, according to division officers.

The Ohio Field Army's first annual report of activities, recently released, shows that in 1939 approximately 2,000 members paid the one-dollar enlistment fee and several hundred persons contributed larger sums to the campaign. The report shows also that during the year more than 3,000 column-inches of space in Ohio newspapers were devoted to the Field Army's program for cancer control, 250 educational broadcasts were staged over the larger radio stations in the state, 100,000 pieces of lay literature were distributed, and many thousands of persons attended cancer exhibits arranged by the Army.

COUNCILORS ARE ADVISERS

Organization of the Women's Field Army in Ohio, which has the official approval of the Ohio State Medical Association, coincides with the councilor districts of the Ohio State Medical Association. At the present time Districts One, Four, Five, Six, Nine, Ten, and Eleven are completely organized, and during 1940 the state group plans to organize District Two as well as to strengthen its organization in the metropolitan areas of Cleveland, Cincinnati, and Toledo. The State Commander, Mrs. G. A. Vincent, of Bloomdale, is responsible for development of the Army's organization throughout the state. There is a vice commander in charge of each district and a captain for each county in the district. The Councilor of the State Medical Association in each district serves as adviser to the vice commander in charge of that district, and presidents of local county medical societies serve as advisers to the county captains.

Policies and program of the Women's Field Army are directed by the Executive Committee, of which Dr. L. A. Pomeroy, of Cleveland, is chairman. Members of this group are Dr. Carl A. Wilzbach, of Cincinnati; Dr. R. H. Markwith, of Columbus, State Director of Health; Dr. Edgar C. Baker, of Youngstown; E. C. Curtis, of Cleveland; and Mrs. Ralph W. Hoffman, of Columbus. Mrs. Hoffman is secretary, Mr. Curtis is treas-

urer, and Dr. Wilzbach is chairman of the committee on cancer education.

PROGRAM IS EDUCATIONAL

The program of this new state-wide health group is entirely educational. Following its slogan, "Fight Cancer with Knowledge," it utilizes every available channel to put forth the message that cancer can be cured and that early diagnosis and treatment are the all-important factors. Its literature, exhibits, and radio programs are designed to teach the layman in clear, straightforward language that the death toll of cancer can be drastically reduced if the public will cooperate with the medical profession in the discovery and treatment of malignancies before it is too late.

Physicians have been the speakers on most of the radio programs sponsored and planned by the Field Army. Approximately 50,000 persons, according to the 1939 report, attended meetings throughout the state at which the Women's Field Army has had some part of the program and has presented physicians to discuss the scientific aspects of cancer control. More than 150,000 visitors attended the exhibit which the Field Army staged in cooperation with the State Department of Health and the Ohio State Fair for 1939, and attendance of approximately 5,000 was recorded at the exhibit of the Cincinnati unit, which was set up at the Hamilton County Fair under the direction of Mrs. Hamilton Frazine.

PUBLIC INTEREST WIDESPREAD

It is the hope of Ohio division officers that increased support and finances during 1940 will make possible an expansion of the educational campaign carried on by the Field Army. Reports from physicians and public clinics everywhere indicate that more and more patients are coming to them asking for diagnosis because of suspicious symptoms, and much of the credit for this is given to the Field Army's efforts in public education. It stresses these two keynotes in its literature and addresses:

1. A comprehensive physical examination once a year for all men and women. For women this must especially include the breasts and uterus.
2. The so-called danger signals, that is symptoms, usually painless, which may indicate the presence of cancer. They are listed as: Any persistent lump or thickening, especially in the breast; an irregular bleeding or discharge from any of the body openings; a sore that does not heal, particularly about the tongue, mouth, or lips; persistent indigestion,

and sudden changes in the form or rate of growth of a wart or mole.

The Field Army urges that a person who notices any of these symptoms on himself should go at once to his family physician for a thorough examination.

* * *

SUGGESTIONS FOR TALK

Since physicians in all parts of the state are being asked by officers of the Women's Field Army to deliver addresses to the lay public on cancer, *The Ohio State Medical Journal* publishes herewith the text of one such talk which was delivered recently by an Ohio physician. It is included here solely as a guide or suggestion for physicians who are asked to speak on cancer and not as an official statement of any sort on cancer education from the State Association.

This talk was delivered by Dr. Jonathan Forman, Columbus, on Thursday, January 25, over Radio Station WCOL, Columbus. The program was one of a series sponsored by the Columbus unit of the Women's Field Army. Members of the Ohio State Medical Association have the author's permission to use any passages, facts, or the entire speech in any talks or articles on this subject which they are requested to prepare.

The text follows:

"The problem of cancer control is closely bound up with life itself. Life begins for each of us by the fusion of two small cells to form a new one. This new cell then multiplies into two cells then 4, 8, 16, 32, 64, 128, 256, 512 and 1,024. This multiplication proceeds at a very rapid rate for a short time and then begins to slow and the cells distribute themselves in an orderly fashion to make a symmetrical body. If this regulation were not imposed, in a short time this new individual would be a shapeless mass almost as large as the earth itself, but long before this point is reached, in fact in the first few hours of life, another force starts to work which determines the size and shape of this new being. This regulatory force determines that the body shall be symmetrical with a leg on each side, an arm on each side, an ear on each side, an eye on each side, and that ultimately the youngster shall grow to be a normally sized human being. When this regulatory mechanism is thrown out of gear and fails to exercise control over a group of cells somewhere in the body, these grow lawlessly, without order, or adequate control—This is Cancer.

"If we injure any part of our body, a certain number of cells die. In this process of dying they set free certain chemicals which stimulate the nearby cells and cause them to multiply. It is in this way that healing takes place and the part is restored to original condition. For the sake of our discussion here, suppose that when healing has been nearly completed the same place is injured again and again when healing is well under way another injury is sustained. If this keeps on day after day it may well happen that these growth-promoting substances liberated by injured cells may be produced in such quantities

that the nearby cells go on multiplying no longer in the orderly process of repair but from there on, now independent of their proper place in the body—And This, Too, is Cancer.

"It may well be that an insufficiency in our diet (very few of us do have an adequate and balanced diet) may generate a growth-promoting factor or withdraw a regulated mechanism and so food deficiencies might theoretically be a cause of cancer. In this direction lies much of the research that waits to be done on the subject.

"But while we wait for these facts, I bring you a message of hope. Two-thirds of the cancer victims need not die if they will only undergo the indicated surgical treatment or radiation with X-ray and radium in time.

"In other words, if you will listen and take to heart what I am saying about constant chronic irritations as a cause of cancer, you probably will never have one.

"So it is of the greatest importance that we should avoid prolonged sources of irritation if we wish to avoid cancer, and who does not? Let us remember then that burns of the lips and tongue from smoking are to be watched for and avoided, for these, if constantly reproduced, often lead to cancer. The faulty habit of bolting food and drink is another source of cancer which we can simply avoid.

"Jagged teeth which are constantly cutting into the cheek must be taken care of promptly or they will produce cancer.

"Then, too, it is not the simple sharp blow that produces the cancer in the female breast, but rather the constant jabbing of a corset stave or the binding and rubbing of an ill-fitting brassiere. These things should and can be avoided. Ill-fitting spectacle bows often through their rubbing produce a cancer of the skin behind the ear. Moles and lumps that are constantly rubbed by the clothing become dangerous. Remember that every lump in the breast is to be regarded as cancer until proven otherwise. Delays of a few weeks often prove fatal. There are, however, countless women living in America who have had a cancer more than five years ago and if a cancer does not return within five years they very seldom ever come back.

"Indigestion after middle life in one who has always been able to eat anything, or a failing appetite with a loss of strength in such a person demands immediate attention, for it may mean a cancer of the stomach.

"Finally, the discharge of blood or other unusual material from any of the openings of the body should be looked into at once for it may be coming from a cancer.

"In a few moments remaining I would like to tell you a little about the Women's Field Army Against Cancer, under whose auspices these weekly programs are arranged. The Women's Field Army was founded in 1936 by the American Society for the Control of Cancer and today it is organized in 46 states. Its purpose is to reduce the number of cancer deaths through a broad and comprehensive program for the prevention and control of cancer.

"The program of the Field Army has been endorsed by the American Medical Association and by the State Medical Societies and State Departments of Health in each state where it is in operation.

"There was a great need for such an organiza-

tion for, although the American Society for the Control of Cancer had conducted a quiet, intensive campaign to raise the standards of medical diagnosis and treatment of cancer, twenty-three years after its founding physicians began to ask for an educational program that would arouse patients to seek medical aid while cancer was still local and curable.

"The physicians were willing and able to treat cancer but they pointed out that they could not go out into the streets and gather in the folks who had the painless symptoms of early cancer. And so, out of this great need for education, the Women's Field Army of the American Society for the Control of Cancer was born.

"Since cancer has seemed a horror particularly to women and since they have more time and inclination to work in this cause, it was particularly fitting that the great educational fight against this killer should be undertaken by women.

"Hundreds of thousands of women throughout the country enrolled in this cause as members of the Women's Field Army. An enlistment campaign is held annually in April which has again been designated by Congress as National Cancer Control month. The Ohio Division of the Women's Field Army was organized in 1939 and has carried on with their work, here in Columbus, not only during the campaign last April but continuously since then. Through weekly radio programs, by lectures of outstanding physicians and by constant publicity they have brought facts about cancer to the public, realizing that victory over fear and ignorance is the first step towards their goal. 'Early Cancer Is Curable. Fight It With Knowledge' is the slogan of the Field Army—one that they shall continue to pursue.

"The Ohio State Medical Association is giving all of the help it can to the Women's Field Army Against Cancer to spread the gospel that hundreds of lives may be saved here in Ohio—first, by prevention of cancer, and second, by promoting earlier diagnosis and treatment. We have known all along that this is a splendid piece of work, but now we are sure of it. In Massachusetts, where a similar campaign has been going on longer than the one here in Ohio, the death rate from cancer is now dropping for the first time in the history of the state since records have been kept.

"I would bespeak your support for this campaign against cancer, but above all I would urge that you make this cancer problem a very personal thing—be on the lookout in your own body. Do everything you can to prevent chronic irritations within yourself. If, unfortunately, you find yourself with a cancer, proceed at once with the aid of your personal physician to whip it, and you can do just this if you are alert. Your family physician will arrange for you to have proper and prompt care at a price which you can really afford. No one need neglect a possible cancer in Ohio because of a lack of funds."

Military Surgeons' Meeting

The 48th Annual Meeting of the Association of Military Surgeons of the United States will be held in Cleveland, Ohio, October 10, 11, and 12, 1940, with headquarters at Hotel Statler.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16.

American Medical Association, New York, June 10-14.

American Academy of Pediatrics, Region 1, Washington, D. C., April 4-6.

American Association of Anatomists, Louisville, Ky., March 20-22.

American Association of Pathologists and Bacteriologists, Pittsburgh, March 21-22.

American College of Physicians, Cleveland, April 1-5.

American Physiological Society, New Orleans, March 13-16.

American Psychiatric Association, Cincinnati, May 20-24.

American Society for Pharmacology and Experimental Therapeutics, New Orleans, March 13-16.

Association of Military Surgeons of U. S., Cleveland, October 10-12.

Federation of American Societies for Experimental Biology, New Orleans, March 13-16.

National Tuberculosis Association, Cleveland, June 3-6.

Northern Tri-State Medical Association, Battle Creek, Mich., April 9.

Ohio State University College of Medicine Post-Collegiate Assembly, Columbus, March 29-30.

Enrollment of Approved Hospital Service Plans Totals 4,431,772

The enrollment of 56 fully approved hospital service plans in the United States as of January 1, 1940, was 4,431,772, according to a recent announcement of the Commission on Hospital Service of the American Hospital Association, which listed the individual associations and their enrollment as of that date. Each of the associations listed met the standards, policies and procedures established by the Commission, and in each instance the plan has been organized as a non-profit corporation, and the provision of service has been guaranteed by the "member" hospitals. Data on the Ohio group hospitalization plans follow:

Name of Plan	Enrollment
Hospital Service Association of Summit County, Akron	31,641
Hospital Service, Inc., of Stark County, Canton	8,550
Hospital Care Corporation, Cincinnati	8,104
Cleveland Hospital Service Association, Cleveland	284,784
Central Hospital Service Association, Columbus	8,304
Hospital Service Association, Toledo	43,106
Associated Hospital Service of Mahoning County, Youngstown	32,653

Great Progress Made in Medical Education, New Survey by A.M.A. Reveals; Cleveland, Cincinnati Facilities Cited

MEDICAL education costs almost twice as much per student as does any other of the various types of professional education, the Council on Medical Education and Hospitals of the American Medical Association reveals in a book, "Medical Education in the United States, 1934-1939," just published by the Association.

The instructional cost per student, on a credit hour basis, in medicine is \$26.96, as compared with \$15.87 for dentistry, \$14.51 for agriculture, \$11.05 for law, \$10.52 for engineering, \$5.92 for commerce, and \$4.06 for education or teaching.

The new book on medical education, condensed in the Jan. 13 issue of *The Journal of the A.M.A.*, contains the report of a survey of medical education which included visits to all recognized medical schools in the United States and Canada. Without naming individual schools, the report describes in general terms the organization and administration, the faculty and student personnel, and the clinical and financial resources of the medical schools. It is the first objective picture of medical education in this country for the years under review.

TAKES TOP RANK

"Not only in scientific investigation and discovery, in private practice and public health," the report says, "but also in the field of education, American medicine has won for itself a place of unquestioned preeminence. The critical study of medical schools initiated by the American Medical Association in 1901 constituted the pioneer educational survey in this country and became, in many respects, a model for those that followed. The achievements of the Council on Medical Education in raising the standards of medical education and practice have served as a stimulus and example to other professions. More recently the Council, in accordance with the request of the Association of American Medical Colleges, undertook another nationwide survey of medical education."

Pointing out that "It is generally believed that of all figures obtainable from an analysis of budgets the one that most nearly indicates the relative excellence of the institution is the expenditure for instruction per student," the report goes on to reveal that this ranged from \$170 to \$3,609 in medical schools, with an average of \$843. However, the percentage of income of these schools from sources other than student fees showed a wide disparity, ranging from a maximum of 90.5 down to 3.7, with an average of 55.3. Income sources included student fees, endowment funds, special gifts and grants, govern-

ment subsidies, subsidies for services rendered and contributed services.

PRACTICAL TRAINING FACILITIES

Concerning facilities for practical medical training of students the report says: "Since medicine can be learned only by observing and examining sick people, the school of medicine must have under its control a sufficient amount and variety of clinical material to enable its students to become thoroughly familiar with all the more common manifestations of disease and to be able to recognize at least those which are less common."

That it may not always be easy to satisfy this requirement is evident from data which show the ratio between the number of medical students in third and fourth year classes and the number of general hospital beds in cities where medical schools are located. Cleveland, with 37.9 such beds per student in 1936, had the most adequate facilities in this respect. Detroit was second with 36.8 and Pittsburgh was third with 32.2. Some of the other cities, in their respective order, were: New York, 32.0; Denver, 30.1; San Francisco and Rochester, N. Y., 24.5 each; Buffalo, 20.1; Los Angeles, 19.7; Cincinnati, 17.9; Albany, N. Y., 17.2; Portland, 16.8; Baltimore, 15.1; Milwaukee, 14.8, and Chicago, 14.4. Obviously, the number of medical schools located in a city affected these ratios.

Pointing out that the geographic location or separation of a medical school from its university presents a problem peculiar to medicine, the report says that "For obvious reasons the medical school, or at least its clinical division, must be located in a large center of population and in close proximity to the hospitals used for teaching. Consequently some medical schools are located apart from the university campus, possibly in the same city but several miles away, in some instances at a distance of from 50 to 200 miles. Again, the medical school itself may be divided, the preclinical sciences being taught in one place and the clinical branches in another. Such scattering of its component parts cannot be in the best interest of the university or promote the unity of medical education."

SELECTION OF STUDENTS

The ratio of students to teachers, a very vital factor in competent medical teaching, was found by the survey to vary from 1:2 to 1:12, with an average of 1:5. Commenting on this finding the report says: "These figures clearly revealed overcrowding in some institutions."

No other element in medical education is so significant to the future as the careful selection

of students of medicine, the report points out. Although medical schools are fortunate, compared with other professional schools, in that they receive annually twice as many applications as they can accept, and a vast amount of effort, time and thought have been devoted to it, the report declares that "the results are not yet wholly satisfactory. Entrance requirements have been progressively raised, but the mere accumulation of college credits is no guaranty of fitness for the practice of medicine. A qualitative appraisal of the candidate's scholastic record is a better though by no means perfect criterion. Recently there has been developed an aptitude test which some institutions believe yields information of value.

"A criticism of medical schools, frequently voiced, is that a student dropped from one institution will not be accepted in any other. If the school in which he originally enrolled has made a conscientious effort to assist him in adjusting himself to the demands made on him there should be no occasion for concern."

In analyzing the instructional facilities and programs for the various branches of medical education, some of the pertinent conclusions drawn by the report include:

"There was clearly manifested a trend toward a dynamic conception of anatomy. There was evident also a definite need for broadly trained anatomists who have a clear understanding of the objectives of the undergraduate medical course.

"The teaching of physiology was handicapped by inadequate facilities or poor equipment in a considerable number of schools. Crowding was more evident than in other departments of the basic medical sciences.

"The importance of pharmacology has recently been emphasized by Raymond B. Fosdick, president of the Rockefeller Foundation, yet this science is hampered by lack of adequate support with a consequent shortage of well trained younger men to fill vacant professorial chairs.

"During half a century, and until very recently, the most striking advances in the field of medicine were made in bacteriology; but these discoveries have had the greatest practical importance through their application to the prevention and cure of disease. For all that, only nineteen of sixty-six schools had set up independent departments of bacteriology. Combined with other departments it frequently played a minor role.

"The treatment of emergencies was a phase of surgical teaching for which, in many instances, inadequate provision was made."

OBSTETRICS EMPHASIZED

No other phase of medicine holds any greater import on the future of the nation than does that of obstetrics. Commenting on this, the report says:

"The importance of sound training and adequate experience in the fundamentals of obstetrics is manifest from the fact that more than 25 per cent of recent medical graduates now locate in communities with a population of less than 5,000.

"In some schools practical obstetrics is an elective course offered to only a fraction of the class. It is sometimes asserted that sufficient clinical material is not available to provide for each student the opportunity personally to conduct a reasonable number of labors (births)."

Some conception of the facilities available for such training is contained in a table in the report which gives the annual births in cities in which there are medical schools, as of 1936, the various cities being listed with their ratio of births to medical school graduates. This shows Detroit leading with a ratio of 375, Cleveland second with 251 and New York third with 215. Some of the other cities, in their respective order, are: Pittsburgh, 204; Buffalo, 157; Milwaukee, 155; Los Angeles, 153; Cincinnati, 120; Rochester, N. Y., 117; Denver, 110; Atlanta, Ga., 106, and Albany, N. Y., 98. Chicago and Baltimore followed with 81 each.

Commenting on this table the report says: "Obviously not all the births occurring in a community are available for teaching, but the table shows that for most of the schools an adequate amount of obstetric material is at hand if the school is determined to secure proper control. On the other hand, in places where the number of births per student falls below fifty it may be questioned whether there is any possibility of conducting a satisfactory course in obstetrics without having recourse to the clinical resources of larger cities."

Because the majority of children are cared for by general practitioners and not pediatricians, medical schools therefore are obliged to lay a sound foundation and give adequate preparation for this type of practice, the report says.

SPECIALTIES NEGLECTED

Regarding the specialties, the report points out that there has been a tendency in some instances to shift their teaching to the graduate school, to fellowships or to residencies, which has led to the neglect of these fields in the undergraduate curriculum.

"Medical schools might well define clearly their responsibilities in this field," the report says.

In summary the report declares that: "Recent years have been marked by conspicuous advances in the field of medical education. In a considerable number of institutions there have been noted substantial improvements in organization and administration, in student selection and in physical and clinical facilities, with a greater measure of financial support. Since the publica-

tion of the Council's first classification of medical schools and the Carnegie report, there has been probably no five year period which has witnessed such activity and progress in the field of medical education."

Meeting of Northern Tri-State Medical Association at Battle Creek, April 9

The Sixty-Seventh Annual Meeting of the Northern Tri-State Medical Association will be held at the Battle Creek Sanitarium, Battle Creek, Michigan, Tuesday, April 9. The association composed of physicians in Indiana, Michigan and Ohio, was established in 1873. The officers are: Dr. D. R. Brasie, Flint, Mich., president; Dr. Burt Hibbard, Lima, vice-president; Dr. E. B. Gillette, Toledo, secretary; Dr. Lyman T. Rawles, Fort Wayne, Indiana, treasurer, and the following counsellors: Dr. O. P. Klotz, Findlay; Dr. H. E. Randall, Flint, Mich.; Dr. Douglas Donald, Detroit, Mich.; Dr. G. O. Larson, LaPorte, Indiana; Dr. H. C. Weisenbarger, Lima, and Dr. F. R. Carter, South Bend, Indiana.

The following program has been arranged:

MORNING SESSION

- 8:15—Dr. George J. Curry, Flint, Mich., "Management of Long Bone Fractures", illustrated with motion pictures. Dr. C. W. Brainard, Battle Creek, Mich., discussant.
- 9:10—Carl J. Klemme, Ph.D., West Lafayette, Indiana, professor of pharmaceutical chemistry, Purdue University School of Pharmacy, "Relationships between Sterols, Cardiac Poisons, Vitamin D and Sex Hormones". Dr. A. M. Shaeffer, Jackson, Mich., discussant.
- 10:05—Dr. David L. Slight, Chicago, Ill., professor of psychiatry, University of Chicago, "Migraine". Dr. J. M. Robb, Detroit, Mich., discussant.
- 11:00—Dr. Thomas E. Jones, Cleveland, "Diverticulitis of the Colon". Dr. R. L. Mustard, Battle Creek, Mich., discussant.

AFTERNOON SESSION

- 1:15—Dr. Louis J. Hirschman, Detroit, professor of proctology, Wayne University College of Medicine, "Fistula in Ano—Its Present Day Treatment". Illustrated with colored motion pictures. Dr. Wendell W. Green, Toledo, discussant.
- 2:10—Dr. Vincent J. O'Connor, Chicago, University of Illinois College of Medicine, "Prostatic Diseases". Dr. R. S. Breakey, Lansing, Mich., discussant.
- 3:05—Business meeting.
- 3:20—Dr. Fred L. Adair, Chicago, professor of obstetrics and gynecology, University of Chicago School of Medicine, "Pyelitis and

Pregnancy". Dr. John P. Gardiner, Toledo, discussant.

- 4:15—Dr. James B. Costen, St. Louis, assistant professor of otolaryngology, Washington University School of Medicine, "Neuralgias and Trismus Resulting from Mandibular Joint Disturbance". Vernor H. Eman, D.D.S., M.S., Grand Rapids, Mich., discussant.

EVENING SESSION

- 6:15—Banquet at Battle Creek Sanitarium.
- 7:15—Dr. Walter C. Alvarez, Rochester, Minn., "The Patient Who Is Always Ailing in Spite of Many Treatments".

New Rules for Institutions for Care of Mentally Ill Issued

Privately-owned homes, hospitals or institutions for the treatment of the mentally ill must obtain licenses annually from the Division of Mental Diseases, State Department of Public Welfare, according to regulations recently issued by the division under the provisions of Sections 1890-19 to 22 of the Ohio General Code. Included in the regulations is the requirement that all such institutions must be directly in charge of a duly qualified physician, having at least three years' practical experience in the treatment of mentally ill persons, and whose standing, character and professional knowledge meet the standards prescribed by the division. Applications for licenses and requests for copies of the rules and regulations should be addressed to Dr. J. Fremont Bateman, State Commissioner of Mental Diseases, State Office Building, Columbus.

New Professor at W.R.U.

Dr. Carlos Eugene Pitkin, Cleveland, has been appointed clinical professor of otolaryngology of Western Reserve University School of Medicine and otolaryngologist at University Hospitals. He succeeds the late Dr. William B. Chamberlin, with whom he had been closely associated in private practice as well as in the Medical School and the University Hospitals. Dr. Pitkin is a member of the Ohio State Medical Association, Fellow of the American Medical Association; member of the American Broncho-Esophagological Society; the American Academy of Otolaryngology and Ophthalmology and the American Laryngological, Rhinological and Otological Society.

Cincinnati—New staff officers of Good Samaritan Hospital are: Dr. Howard D. McIntyre, president; Dr. Donald Lyle, president-elect; Dr. Lloyd B. Johnson, secretary-treasurer; Dr. C. J. McDevitt and Dr. J. J. Maloney, members of the executive board.

In Memoriam

John Anderson, M.D., Cleveland; Niagara University Medical Department, Buffalo, N. Y., 1895; aged 79; died January 23. One of the founders of the Hospital Clinic, which later became Polyclinic Hospital, Dr. Anderson practiced in Cleveland for 45 years. He was a member of the Masonic Order and the Church of the Covenant. Surviving are his widow, two daughters and two sons, one of whom is Dr. John B. Anderson, Cleveland.

David Thomas Bailey, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1900; aged 66; died January 21. Dr. Bailey practiced in Cleveland for 30 years. He was a member of the Masonic Order and the Elks' Lodge. A son survives.

George Blackford, M.D., Eldorado; Pulte Medical College, Cincinnati, 1904; aged 59; died January 28. Dr. Blackford practiced in Eldorado for about 30 years. He was formerly located in Xenia, Middletown, Monroe and Campbellstown. His widow, a son, two sisters and a brother survive.

Frank Cook, M.D., Columbus; Ohio State University College of Medicine, Columbus, 1931; aged 33; died January 22. Dr. Cook died in Edwin Shaw Sanatorium, Akron, where he had been a patient for 18 months. He was formerly a staff physician at Fair Oaks Villa, Cuyahoga Falls, and had been on the staff at Columbus State Hospital for one year. His mother survives.

George Jerome Edam, M.D., Put-in-Bay; St. Louis University School of Medicine, 1934; aged 34; died February 14. Dr. Edam, his wife and two children were drowned when their automobile went through the ice off Middle Bass Island, Lake Erie, when he was returning from a professional call. He had practiced at Put-in-Bay since last November, having formerly been located in Lakewood. His parents and two sisters survive.

Emanuel Reuben Fast, M.D., Fostoria; Cincinnati College of Medicine and Surgery, 1899; aged 72; member of the Ohio State Medical Association and the American Medical Association; died February 10. Dr. Fast practiced in Fostoria for 26 years. He was a member of the Eagles. His widow, three sisters and a brother survive.

Elmer E. Fowler, M.D., Oak Hill; Starling Medical College, Columbus, 1897; aged 77; former member of the Ohio State Medical Association and the American Medical Association; died February 4. Dr. Fowler retired several years ago after having practiced in Oak Hill for 25 years. He was formerly located in Oklahoma.

Guy Ransom Fromm, M.D., Cincinnati; Eclectic Medical College, Cincinnati, 1916; aged 55; member of the Ohio State Medical Association and the American Medical Association; died January 31. Dr. Fromm practiced in Cincinnati and Covington, Ky., for 22 years. He was a member of the staff of Deaconess Hospital, Cincinnati, and Booth Memorial Hospital, Covington. Dr. Fromm was a member of the Masonic Order. His widow, a son, Dr. Eugene P. Fromm, Cincinnati, a sister and a brother survive.

William Andrew Gowing, M.D., Toledo; Toledo Medical College, 1898; aged 69; died January 17. Dr. Gowing practiced in Toledo for over 40 years. During the World War he was a captain in the Medical Corps of the United States Army. A daughter survives.

Hugh L. Hall, M.D., Amherst; Western Reserve University School of Medicine, 1884; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died February 16. Dr. Hall retired two years ago, after 53 years' practice in Amherst. He was a member of the Congregational Church, Masonic Order, Odd Fellows and Knights of Pythias. A son survives.

George M. Hite, M.D., Amelia; Eclectic Medical College, 1918; aged 51; died January 20. Dr. Hite formerly practiced in Toledo. He had been located in Amelia for eight months. A daughter and a brother survive.

Edwin J. Kehoe, M.D., San Mateo, Calif.; Miami Medical College, Cincinnati, 1903; aged 66; died February 12. Dr. Kehoe was formerly assistant health commissioner in Cincinnati. He had been associated in the U. S. Veteran's Bureau for the past 17 years. Surviving are his widow, a daughter and two sons.

Arthur Munson MacNamee, M.D., Batavia; Georgetown University School of Medicine, 1898; aged 66; member of the Medical Society of the District of Columbia and the American Medical Association; died February 6. Dr. MacNamee, who was retired, served in the quartermaster corps in the Spanish American War and was a captain in the Medical Corps of the U. S. Army during the World War. His widow survives.

Edward A. Mayer, M.D., Pleasant Plain; Eclectic Medical College, Cincinnati, 1936; aged 29; died January 26. Dr. Mayer practiced in Pleasant Plain for three years. He was a member of the Masonic Order. His widow, a son, his mother and a brother survive.

Erminnie Hill Smallwood, M.D., McArthur; Woman's Medical College, Cincinnati, 1894; aged 76; died January 30. Dr. Smallwood practiced in Zaleski, Chillicothe and Westerville, with her husband, the late Dr. Frank Smallwood. After his death she returned to her native town, McArthur, and entered practice there. Dr. Smallwood was active in religious circles, being an enthusiastic member of the Methodist Church, and the W.C.T.U.

William H. Stroup, M.D., Spencer; Cleveland College of Physicians and Surgeons, 1885; aged 89; died February 4. Dr. Stroup retired several years ago after practicing medicine in Rivers Corners and Spencer for over 50 years. Active in community affairs, he was a member of the Spencer Board of Education continuously for 42 years. Dr. Stroup was a member of the Methodist Church. A daughter and a sister survive.

William Eberle Thompson, M.D., Bethel; Cincinnati College of Medicine and Surgery, 1860; aged 105; honorary member of the Clermont County Medical Society; member of the Ohio State Medical Association and Fellow of the American Medical Association; died February 19. Known as the nation's oldest practicing physician, Dr. Thompson practiced in Bethel for 80 years. He died as the result of injuries suffered in fall. Dr. Thompson discontinued calling on patients soon after he became 100, but continued office treatments until the time of his injury two weeks prior to his death. He was one of a family of 12 physicians, including his father. Dr. Thompson enlisted as a surgeon in the Union Army at the outbreak of the Civil War, but was invalidated home within a short time. He was a member of the Odd Fellows Lodge. His widow and a daughter survive.

George Francis Van Pelt, M.D., Gordon; Medical College of Ohio, Cincinnati, 1898; aged 71; member of the Ohio State Medical Association and Fellow of the American Medical Association; died January 24. Dr. Van Pelt opened his first office at Connersville, Indiana, practicing there for 10 years. From 1908 to 1922 he was located in Bradner, Ohio, and since 1922 in Gordon. Dr. Van Pelt was a member of the Masonic Order, the Odd Fellows and the Methodist Church. His widow, a daughter, two sons, a sister and a brother survive.

James Oscar Wickerham, M.D., Rockford; Starling Medical College, Columbus, 1897; aged 76; former member of the Ohio State Medical Association and the American Medical Association; died January 14. Dr. Wickerham retired in 1938 because of ill health, after having practiced in Rockford for nearly 30 years. He was formerly located in Youngsville and Seaman. During the

World War, Dr. Wickerham was a captain in the Medical Corps of the United States Army. He was a member of the Masonic Order, the American Legion and the Methodist Church. A daughter, two sisters and four brothers survive.

Special Board Examinations

American Board of Anesthesiology: An Affiliate of the American Board of Surgery. Oral. Part II. New York, June 10-11. Applications must be received 60 days prior to examinations. Sec., Dr. Paul M. Wood, 745 Fifth Ave., New York.

American Board of Dermatology and Syphilology: November 1940. If a sufficient number of applications are received before March 1 there will be an examination at New York, June 10-14. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Internal Medicine, Inc.: Oral examinations just previous to the meeting of the American College of Physicians in Cleveland, April 1-5, and just in advance of the A.M.A. meeting in New York, June 10-14. Applicants who have passed the written examination and plan to take the oral examination in 1940 should advise the secretary at least six weeks in advance of the date of the examination they desire to take. Next written examination, October 21. Applications must be filed with the secretary by September 1. Sec., Dr. William S. Middletown, 1301 University Ave., Madison, Wis.

American Board of Obstetrics and Gynecology: General oral and pathologic examinations (Part II) for all candidates (Groups A and B) will be conducted in Atlantic City, N. J., June 7-10. Applications for admission to Group A, Part II, examinations must be on file not later than March 15. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6).

American Board of Ophthalmology: Oral. New York, June 8-10; Cleveland, Oct. 5. Sec., Dr. John Green, 6830 Waterman Ave., St. Louis.

American Board of Otolaryngology: New York, June 3-5. Sec., Dr. W. P. Wherry, 1500 Medical Arts Bldg., Omaha.

American Board of Pathology: New York, June 10-11. Sec., Dr. F. W. Hartman, Henry Ford Hospital, Detroit.

American Board of Pediatrics: Kansas City, Mo., May 18, following the Region III meeting of the American Academy of Pediatrics. Seattle, June 2. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

American Board of Psychiatry and Neurology: Cincinnati, May 17-18. Sec., Dr. Walter Freeman, 1028 Connecticut Ave., N.W., Washington, D. C.

American Board of Radiology: New York, June 7-10. Sec., Dr. Byrl R. Kirklin, 102-110 Second Ave., Rochester, Minn.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

Officers of the Adams County Medical Society for 1940 are: Dr. S. J. Ellison, West Union, president; Dr. W. T. LaNeave, Peebles, vice-president; Dr. O. T. Sproull, West Union, secretary-treasurer; Dr. Sam C. Clark, Cherry Fork, legislative committeeman; Dr. A. R. Carrigan, Manchester, delegate; Dr. O. K. Engelke, West Union, alternate.—O. T. Sproull, M.D., secretary.

BUTLER

Dr. Merrill F. Steele, superintendent of Christ Hospital, Cincinnati, spoke on "Group Hospitalization", at a meeting of the Butler County Medical Society, Thursday evening, January 25, at the Elks' Temple, Hamilton, with 24 members present.—Vera C. Iber, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during February:

February 6—"The Place of Group Practice in American Medicine", by Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, Chicago, Ill., and Dr. Kingsley Roberts, director, Bureau of Cooperative Medicine, New York City. Members of the Cincinnati Dental Society were guests at the meeting.

February 13—Hospital Night. The following program of case reports was presented by members of the staff of Bethesda Hospital: "Mycotic Infections of the Lung", by Dr. Oscar Berghausen; "Notes on Pyogenic Infections of the Skin", by Dr. Karl G. Zwick; "Imperforate Anus in a 12-year-old Girl", by Dr. E. A. Kindel; "Congenital Cyst of Lung", by Dr. David W. Heusinkveld; "Degenerating Fibroids Complicating Pregnancy", by Dr. H. F. Conwell; "A Case of Hives", by Dr. George E. Rockwell and Dr. Richard B. Homan; "Gallstones in a Child", by Dr. E. V. Stewart.

February 20—"Pneumoconiosis", by Dr. LeRoy U. Gardner, director, Saranac Laboratory for the Study of Tuberculosis, under the Edward L. Trudeau Foundation, Saranac Lake, N. Y.

February 27—"Tests of Kidney Function", by Glenn E. Cullen, Ph.D.; "Tests of Liver Function", by Dr. I. Arthur Mirsky, May Institute of Medical Research, Jewish Hospital, Cincinnati; "Red Blood Cell Fragility", by Dr. George M. Guest; "Blood Concentration of the Salt Sulfanilamide Drugs", by Dr. Armine Wilson.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

DARKE

Fees for certain types of relief work were discussed at a meeting of the Darke County Medical Society, Friday evening, February 2, at Greenville. Dr. F. E. Hagie, Richmond, Indiana, spoke on "Principles and Application of the Hagie Pin", at a meeting of the society, Tuesday, February 20, at Greenville.—W. D. Bishop, M.D., secretary.

GREENE

Dr. P. B. Wingfield, Yellow Springs, gave a very interesting and instructive lecture on "Atypical Primary Pneumonia", at a meeting of the Greene County Medical Society, Thursday, February 1, at Xenia.—Donald F. Kyle, M.D., secretary.

MONTGOMERY

A symposium on "Nephritis" was presented by Dr. Benedict Olch, Dr. Homer D. Cassel and Dr. Michael R. Haley, at a meeting of the Montgomery County Medical Society, Friday evening, February 16, in the auditorium of the Fidelity Medical Building, Dayton. Members of the staff of St. Elizabeth Hospital furnished the program at a complimentary dinner meeting of the society at the hospital, Friday evening, February 2.—Mildred E. Jeffrey, executive secretary.

PREBLE

Officers of the Preble County Medical Society for 1940 are: Dr. C. E. Newbold, president; Dr. J. R. Williams, secretary-treasurer; Dr. C. J. Brian, legislative committeeman; Dr. G. W. Flory, delegate; Dr. J. I. Nisbet, alternate, all of Eaton.—J. R. Williams, M.D., secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

ALLEN

Dr. Elmer R. Arn, Dayton, addressed the Academy of Medicine of Lima and Allen County, Tuesday, January 16, on "Thyroidectomy Without Hyperthyroidism, Post-Operative Results".

"Present Day Legislative Problems", was the subject of an address made by Dr. J. H. J. Upham, Dean of Ohio State University College of Medicine, Columbus, at a meeting of the Academy, Tuesday, February 20, at Lima.—Edward D. Pedlow, M.D., correspondent for *The Journal*.

Dr. O. S. Robuck, Gomer, is the president of

the Academy for 1940. Other officers are the following Lima physicians: Dr. P. J. Steuber, vice-president; Dr. J. M. McBride, secretary-treasurer; Dr. J. B. Poling, chairman, and Dr. A. N. Wisley, Jr., and Dr. Burt Hibbard, members of the legislative committee; Dr. J. W. Halfhill, delegate; Dr. F. G. Maurer, alternate.—J. M. McBride, M.D., secretary.

AUGLAIZE

Dr. Arthur P. R. James, Toledo, spoke on "Common and Interesting Skin Diseases, Including Syphilis", at a meeting of the Auglaize County Medical Society, Wednesday evening, February 7, at the Court House, Wapakoneta. The speaker was excellent, the views superb and the whole meeting interesting and well attended, in spite of bad weather.

At the business session, a fee schedule for relief medical service worked out by a committee of the society and the county relief supervisor, was approved and adopted without dissent, so that for the first time in Auglaize County a satisfactory relationship has been established between relief officials and the medical profession for the medical care of the poor.—Chas. C. Berlin, M.D., secretary.

CRAWFORD

Crawford County Medical Society held its regular monthly meeting, Monday evening, February 5, at Bucyrus. The guest speaker, Dr. E. Harlan Wilson, Columbus, was prevented from attending because of heavy fog surrounding Columbus. Dr. Harry L. Reinhart, Columbus, will speak on "Liver Function Tests", at a meeting of the society, Monday, March 4, at the Greenlawn Club, near Crestline.

Officers of the society for 1940 are: Dr. C. A. Marquart, Crestline, president; Dr. M. L. Helfrich, Galion, vice-president; Dr. T. D. Sawyer, Crestline, secretary-treasurer; Dr. John S. Kiess, and Dr. W. G. Carlisle, Bucyrus, legislative committeemen; Dr. G. T. Wasson, Bucyrus, public relations committeeman; Dr. Marquart, medical economics committeeman; Dr. K. H. Barth, New Washington, delegate; Dr. C. J. Griebing, Galion, alternate; Dr. Daniel G. Arnold and Dr. D. D. Bigler, Bucyrus, and Dr. A. E. Loyer, New Washington, members of the Board of Censors.—Theodore D. Sawyer, M.D., secretary.

HARDIN

Dr. George I. Nelson, Columbus, spoke on "Diabetes" at a meeting of the Harding County Medical Society, Thursday evening, January 18, at Kenton.—News clipping.

LOGAN

"The Thyroid Gland and Its Relation to the Other Endocrines", was the subject discussed by Dr. Norris W. Gillette, Toledo, at a meeting of the Logan County Medical Society, Friday eve-

ning, February 9, at the Hotel Logan, Bellefontaine.—Frederick W. Kaylor, M.D., secretary.

MARION

Dr. Harry E. LeFever, Columbus, spoke on "Lesions of the Spinal Cord", at a meeting of the Marion Academy of Medicine, Tuesday evening, January 2, at the Marion City Hospital.—News clipping.

Officers of the Academy for 1940 are: Dr. Floyd D. Yeager, Marion, president; Dr. J. G. McNamara, Marion, vice-president; Dr. John Alfred McNamara, Marion, secretary; Dr. M. F. Axthelm, Caledonia, treasurer; Dr. T. H. Sutherland, Marion, legislative committeeman; Dr. E. L. Brady and Dr. J. G. McNamara, Marion, and Dr. Axthelm, public relations committeemen.—John A. McNamara, M.D., secretary.

SENECA

A meeting of the Seneca County Medical Society, Thursday evening, February 15, at Fostoria City Hospital, was devoted to a round-table discussion of "The Use of Sulfapyridine".—M. H. Aiken, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Academy of Medicine of Toledo and Lucas County presented the following programs during February:

February 2—General Meeting of the Academy. "The Michigan Medical Service Plan", by W. J. Burns, Executive Secretary, Michigan State Medical Society, Lansing, Mich.

February 9—Section of Pathology, Experimental Medicine and Bacteriology. "Irradiation Therapy of Benign Pelvic Lesions", by Dr. Norman Kretzschmar, associate professor of obstetrics and gynecology, University of Michigan Medical School, Ann Arbor, Mich. Dr. W. S. Peck, discussant.

February 16—Medical Section. "Round-Table Discussion on Physiology of Respiration", under the direction of Dr. Paul Hohly, assisted by Dr. E. G. Galbraith, Dr. F. W. Clement, Dr. K. C. McCarthy and Dr. J. L. Kobacker.

February 23—Surgical Section. "Chronic Recurring Sciatica, Due to a Rupture of the Intervertebral Cartilage, With a Protrusion of the Nucleus Pulposus, Differential Diagnosis and Treatment", by Dr. Alfred W. Adson, professor of neurosurgery, University of Minnesota Graduate School, Rochester, Minn.—Bulletin.

PUTNAM

Dr. G. A. Edwards, Van Wert, was the principal speaker at the monthly meeting of the Putnam County Medical Society, Tuesday, February

Twenty-Fourth Annual Session

THE AMERICAN COLLEGE OF PHYSICIANS

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AN OUTSTANDING POSTGRADUATE WEEK IN INTERNAL MEDICINE AND ALLIED SPECIALTIES; GENERAL SESSIONS, SPECIAL LECTURES, PANEL DISCUSSIONS, HOSPITAL CLINICS AND DEMONSTRATIONS

The General Sessions offer a wide variety of subjects, each chosen because of its current interest and importance. In every instance, the speaker has a personal interest in his subject and can be relied upon to present new and important material. One session provides a program on aviation and submarine medical problems, arranged through the cooperation of the Surgeons General of the U. S. Army and Navy. Another session covers such general, yet universally interesting subjects, as specialization in medicine, postgraduate activities of the College, and the influence of the American Board of Internal Medicine. Among newer topics are the relation of the endocrines to edema formation; the occurrence of vitamin deficiencies in gastro-intestinal conditions, and the very suggestive new work on the use of agents obtained from soil micro-organisms in the treatment of experimental infections. Treatment is well represented by papers on the surgical therapy of hypertension; a report on the newest drug of the sulfapyridine type; also on one of the newer respiratory stimulants. In the final session, four papers on psychosomatic medicine are grouped together to form an authoritative symposium. Among the many speakers appear:

A. W. Adson, Rochester
E. V. Allen, Rochester
Joseph C. Aub, Boston
E. L. Bortz, Philadelphia
J. S. L. Brown, Montreal
René J. Dubos, New York
H. Flanders Dunbar, New York

Reginald Fitz, Boston
L. A. Julianelle, St. Louis
Joseph Kaufmann, Montreal
Kenneth M. Lynch, Charleston
Thomas T. Mackie, New York
Chas. F. Martin, Montreal
J. C. Meakins, Montreal

O. H. P. Pepper, Philadelphia
G. G. Richards, Salt Lake City
Conley H. Sanford, Memphis
Fred M. Smith, Iowa City
R. R. Snowden, Pittsburgh
Wm. D. Stroud, Philadelphia
Jos. T. Wearn, Cleveland

On the program of Special Lectures, the topics are varied. Each is important and lends itself to presentation as a well-balanced review. Each of the lecturers is an authority on the subject he will present. Names include:

A. B. BROWER, Dayton
RUSSELL L. HADEN, Cleveland
LOUIS HAMMAN, Baltimore
WM. J. KERR, San Francisco

J. H. MEANS, Boston
J. H. MUSSER, New Orleans
B. M. PATTEN, Ann Arbor
V. P. SYDENSTRICKER, Augusta

Panel Discussions will be conducted by several distinguished authorities, each being prepared to discuss any phase of the subject assigned, in edema and nephritis, newer drugs in therapy, gastro-enterology, tuberculosis, drug therapy in heart disease, problems in electrocardiography, hemorrhagic diseases, physiological aspects of cardiac disease, vitamin B in internal medicine, allergy in internal medicine, diabetes, shock treatment of psychoses, lymphomatoid diseases, industrial diseases, endocrinology of puberty and climacterium, and anemia.

Hospital Clinics and Demonstrations in Cleveland institutions by local and visiting physicians will constitute an important and practical part of the program. Recent advances will be presented in special fields, and in some instances these exercises will be augmented by clinical-pathological conferences.

ALL QUALIFIED PHYSICIANS ARE CORDIALLY INVITED. Fellows and Associates of the American College of Physicians and members of the Medical Corps of the Public Services of the United States and Canada will be admitted without registration fee. Non-members of the College will pay a nominal registration fee at time of registering at Cleveland.

For further details and formal program, consult the Executive Secretary.

O. H. PERRY PEPPER, M.D., President,
Philadelphia, Pa.

E. R. LOVELAND, Executive Secretary,
4200 Pine St., Philadelphia, Pa.

HOWARD T. KARSNER, M.D., General Chairman,
Cleveland, Ohio

6, at the Hotel Putnam, Ottawa. Dr. Edwards discussed "Mastoiditis", with particular reference to early diagnosis and the use of sulfanilamide in treatment. He believes the use of this drug has quite markedly lessened the necessity for operation, also the incidence of deafness and other sequelae. Dr. Edwards pointed out, however, the danger of over-enthusiasm in the use of sulfanilamide and dependence upon it to the neglect of proper surgical measures when indicated.—H. N. Trumbull, M.D., correspondent for *The Journal*.

WILLIAMS

A dinner meeting of the Williams County Medical Society, Thursday, February 15, at the Elder Hotel, Bryan, was devoted to a discussion of the new method of collecting fees from indigent patients. The county health commissioner requested views on cooperation with school authorities in the enforcement of a compulsory immunization program.—W. E. McKee, M.D., secretary.

WOOD

Dr. William H. Meffley, Toledo, spoke on "Early Diagnosis of Carcinoma", and Dr. Willis S. Peck, Toledo, discussed "Treatment of Carcinoma", at a meeting of the Wood County Medical Society, Thursday evening, February 15, at the Woman's Club, Bowling Green.

Clyde Koontz, clerk of the Wood County Commissioners, explained the operation of the medical relief program agreed upon by the commissioners and the society.

J. L. Price, a representative of the Toledo Physicians and Dentists Credit Association conducted a round-table discussion on the services of that organization which has the approval of the Toledo Academy of Medicine. The purpose of the discussion was to determine whether a similar plan would be feasible in Wood County.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland and Cuyahoga County presented the following programs during February:

February 2—Clinical and Pathological Section. "Myasthenia Gravis with Thymoma", by Dr. David Weir and Dr. E. S. Ingraham, Jr.; "The X-Ray Diagnosis of Adrenal Tumors", by Dr. J. J. Joelson and Dr. John Williams; "Visualization of Heart Chambers", by Dr. E. von Baeyer and Dr. I. M. Liebow; "Treatment of Addison's Disease with Desoxycorticosterone", by Dr. R. A. Shipley; "Cholecysto-Duodeno-Colic Fistula", by Dr. F. Mautz; "Mixed Tumor of the Breast", by Dr. W. B. Wartman and Dr. F. Mautz; "Brain

Tumor without Displacement of the Ventricles", by Dr. C. S. Beck.

February 9—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society of Experimental Biology and Medicine. "Influence of Ergosterol on the Cytology of the Liver Lobule", by Dr. W. Heymann and Dr. W. B. Wartman; "The Contribution of the Second Thoracic Spinal Segment to the Sympathetic Innervation of the Hand", by Dr. L. N. Atlas; "Evaluation of Blood Findings in Late Pregnancy", by Dr. J. W. Mull. "Sexual Maturation in the Female Macaque Monkey", by Ruth Smith, M.S., and Dr. B. B. Rubenstein.

February 14—Medical Practice Section. "Hypertension Due to Tumors of the Adrenal Medulla", by Dr. J. J. Joelson; "Recent Advances in the Treatment of Addison's Disease", by Dr. E. Perry McCullagh.

February 16—Regular Academy Meeting. "Chronic Non-Tuberculous Infections of the Lung", by Dr. Charles R. Austrian, Baltimore, Md., associate professor of medicine, Johns Hopkins University School of Medicine.

February 20—Military Section. "The Role of the Physician in a Major Emergency", by Lt. Col. David L. Stewart, professor of military science and tactics, Western Reserve University.

February 21—Industrial Medicine and Orthopedic Section. "Tuberculous Knees—Two Unusual Cases", by Dr. Wallace Duncan; "Fracture Dislocation of the Humerus", by Dr. Theodore A. Willis; "Arterial Hypertension in the Industrial Worker", by Dr. A. D. Nichol and Dr. Walter A. Engel; "Repair of Cranial Defects", by Dr. Spencer Braden; "Correction of Deformities Resulting from Jaw Injuries", by Dr. Donald M. Glover; "Treatment of Thoracic Injuries", by Dr. Paul Gebauer.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. J. R. Buchanan, Youngstown, discussed "General Management of Fractures", at a meeting of the Columbiana County Medical Society, Tuesday night, February 13, at the American Legion Hall, Lisbon.—News clipping.

The society has selected the following officers in addition to those listed in the February issue of *The Journal*—Legislative committeemen: Dr. J. W. Schoolnic, East Liverpool; Dr. R. E. Smucker, Salem; Dr. E. W. Miskall, East Liverpool; Dr. F. W. Trader, Columbiana. Public relations committeemen: Dr. H. H. Bookwalter, Columbiana; Dr. A. R. Cobbs, Damascus; Dr. A. L. Turner, East Liverpool; Dr. J. S. Atchison, East Palestine; Dr. C. C. Taylor, East Rochester; Dr. H. J. Pelley, Hanover town; Dr. P. H. Beaver, Leetonia; Dr. E. B. Egli, Lisbon; Dr. G. E. Byers, Salem; Dr.

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FRACTURES & TRAUMATIC SURGERY—Ten Day Intensive Course starting April 22, 1940. Informal Course every week.

GYNECOLOGY—Two Weeks Course April 22, 1940. One Week Personal Course Vaginal Approach to Pelvic Surgery, April 8, 1940.

OBSTETRICS—Two Weeks Course April 8, 1940. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Course starting April 8, 1940. Informal Course every week.

OPHTHALMOLOGY—Two Weeks Course starting April 22, 1940. Informal Course every week.

CYSTOSCOPY—Ten Day Practical Course rotary every two weeks. One month and two Weeks Courses in Urology every two weeks.

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E. C. Louthan, Sebring; Dr. E. G. Kuhlman, Wellsville; Dr. V. E. McEldowney, Newell, W. Va. Medical economics committeemen; Dr. F. R. Crowgey, Salem; Dr. John A. Murphy, East Liverpool. Delegate, Dr. P. H. Beaver, Leetonia; alternate, Dr. J. A. Fraser, East Liverpool.—P. W. Conrad, M.D., secretary.

MAHONING

Dr. Gabriel Tucker, professor of bronchology, esophagology and laryngeal surgery, Graduate School, University of Pennsylvania School of Medicine, Philadelphia, Pa., spoke on "Observations of General Medical Interest on the Diagnosis and Treatment of Benign and Malignant Tumors of the Larynx, with Special Reference to Cancer of the Larynx", at a meeting of the Mahoning County Medical Society, Tuesday evening, February 20, at the Youngstown Club, Youngstown.—Bulletin.

Officers of the society for 1940 are: Dr. Robert B. Poling, president; Dr. O. J. Walker, president-elect; Dr. John Noll, secretary; Dr. Elmer H. Nagel, treasurer; Dr. Walter K. Stewart, Dr. Dean A. Nesbit and Dr. Gordon G. Nelson, delegates; Dr. W. H. Evans, Dr. Edw. J. Reilly and Dr. Ivan C. Smith, alternates. Members of committees were listed in the February issue of *The Journal*.—John Noll, M.D., secretary.

PORTAGE

Dr. Theodore L. Bliss, Akron, spoke on "Peptic Ulcer", at a meeting of the Portage County Medical Society, Thursday evening, February 1, at the home of Dr. Paul H. Zinkhan, Ravenna.—E. J. Widdecombe, M.D., secretary.

SUMMIT

"Some Known Diagnostic and Therapeutic Endocrine Facts of Value to Both Patient and Physician", was the subject of an address made by Dr. R. L. Schaefer, chief of staff, St. Joseph's Mercy Hospital, Detroit, at a meeting of the Summit County Medical Society, Tuesday evening, February 6, at the Nurses' Home of the Akron City Hospital.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Forty members of the Belmont County Medical Society and guests from Jefferson and Harrison counties enjoyed a dinner meeting of the society, Thursday evening, January 25, at the home of Dr. R. H. Wilson, Martins Ferry. Informative talks on organization matters were given by Dr. William M. Skipp, Youngstown, President-Elect of the Ohio State Medical Association, and Dr. Carl Goehring, Steubenville, Councilor for the Seventh District. Dr. Wilson showed interesting travel movies.—News clipping.

COSHOCTON

Dr. Carl Goehring, Steubenville, Councilor for the Seventh District of the Ohio State Medical Association, discussed organization matters at a meeting of the Coshocton County Medical Society, Tuesday evening, January 30, at the Nurses' Home, Coshocton.—News clipping.

TUSCARAWAS

Dr. Harry W. Gauchat, Canton, was the guest speaker at a meeting of the Tuscarawas County Medical Society, Thursday evening, February 8, at the Reeves Hotel, New Philadelphia.—News clipping.

Officers of the society for 1940 are: Dr. G. I. Goodrich, Dover, president; Dr. J. W. Calhoon, Uhrichsville, vice-president; Dr. David H. Allen, Dover, secretary-treasurer; Dr. Calhoon, Dr. Burrell Russell, New Philadelphia, and Dr. J. A. McCollam, Uhrichsville, legislative committeemen; Dr. W. E. Hudson, New Philadelphia; Dr. K. E. Bennett, Strasburg, and Dr. Herbert Van Epps, Dover, public relations committeemen; Dr. C. J. Miller, New Philadelphia; Dr. A. H. Syler, Sugar-creek, and Dr. M. W. Everhard, New Philadelphia, medical economics committeemen; Dr. Calhoon, delegate; Dr. Russell, alternate.—David H. Allen, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Dr. Russel G. Means, Columbus, spoke on "Therapy in Acute Upper Respiratory Infections", at a meeting of the Athens County Medical Society, Tuesday, February 6, at the Christian Church, Nelsonville.

GUERNSEY

A general business meeting of the Guernsey County Medical Society was held at the Berwick Hotel, Cambridge, Thursday noon, January 18. Dr. Fundenbug gave a talk on "Treatment of Hernia by the Injection Method", at the bi-monthly luncheon meeting of the society, Thursday noon, February 1.—O. Reed Jones, M.D., secretary.

LICKING

Twenty-seven members of the Licking County Medical Society attended a dinner meeting in Hull Place, Newark, Tuesday, January 30, at which Dr. Raymond A. Ramsey, Columbus, spoke on "Problems of Thyroid Disease".—News clipping.

MORGAN

The following resolution was adopted by the Morgan County Medical Society, at a meeting in McConnelsville, Thursday evening, January 11:

Whereas, the death of Dr. Lee Humphrey has deeply shocked and grieved the members of this

EDWARD REINERT, M. D. and JAY McLEAN, M. D.

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society, the people of this county and of the entire State of Ohio, and

Whereas, the passing of this great, unselfish, courageous, liberal-minded, and forward-looking physician represents an irreparable loss to the entire State of Ohio, to the people of this community, and to the Medical Society of Morgan County, and

Whereas, this beloved physician devoted his entire adult life to the continuous service of his State, Community, and the advancement of his chosen profession of Medicine, and died while actually on duty in that service, and

Whereas, in a sick, weary and impoverished world the memory and spirit of Dr. Humphrey will endure always and continue to serve as a powerful and wholesome influence and inspiration of integrity, sincerity, and kindness, now

Therefore, be it resolved, that the members of this Society do hereby make permanent record of their grief and reverence for one of this State's finest and noblest citizens, a friend to every member of this community and a brother to ourselves.—Edgar Northrup, M.D., secretary.

Officers of the society for 1940 are: Dr. C. V. Davis, Pennsville, president; Dr. A. A. Tombaugh, McConnellsville, vice-president; Dr. Edgar Northrup, McConnellsville, secretary-treasurer; Dr. C. E. Northrup, McConnellsville, legislative committeeman; Dr. E. G. Rex, McConnellsville, delegate; Dr. C. E. Northrup, McConnellsville, alternate.—Edgar Northrup, M.D., secretary.

PERRY

Dr. Fred E. Spangler, Somerset, president of the Perry County Medical Society, spoke on "Outlook for 1940" at a meeting of the society, Thursday, January 18, at the Park Hotel, New Lexington.—News clipping.

At a meeting of the society, Thursday, February 15, at the Park Hotel, New Lexington, Dr. Carl W. Brown, Lancaster, discussed "Fractures of the Femur".—F. J. Crosbie, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

JACKSON

Officers of the Jackson County Medical Society for 1940 are: Dr. J. L. Frazer, Wellston, president; Dr. Marlin R. Wedemeyer, Oak Hill, vice-president; Dr. G. A. Parry, Jackson, secretary-treasurer; Dr. H. W. Gillen, Wellston, legislative committeeman; Dr. W. B. Taylor, Jackson, public relations committeeman; Dr. Mel D. Smith, Wellston, medical economics committeeman; Dr. J. S. Hunter, Jackson, delegate; Dr. J. J. McClung, Jackson, alternate.—J. L. Frazer, M.D., retiring secretary.

LAWRENCE

Lawrence County Medical Society has selected the following officers for 1940: Dr. F. R. Stewart, president; Dr. T. E. Miller, vice-president; Dr. Wm. A. French, secretary-treasurer; Dr. J. D.

Swango and Dr. Miller, legislative committeemen; Dr. H. S. Allen and Dr. J. W. Payne, Willow Wood,, public relations committeemen; Dr. G. G. Hunter, Dr. W. R. Swango and Dr. J. D. Swango, medical economics committeemen; Dr. Hunter, delegate; Dr. R. F. Massie, alternate, all of Iron-ton except Dr. Payne.—Wm. A. French, M.D., secretary.

LOGAN

Local health problems were discussed by Dr. H. M. Boocks, city health commissioner, at a meeting of the Hocking County Medical Society, Friday, January 26, at the White House, Logan.—News clipping.

MEIGS

Officers of the Meigs County Medical Society for 1940 are: Dr. Robert R. Boice, Pomeroy, president; Dr. P. A. Jividen, Rutland, vice-president; Dr. F. M. Cluff, Middleport, secretary-treasurer; Dr. E. F. Maag, Pomeroy, legislative committeeman; Dr. E. D. McCullough, Pomeroy, public relations and medical economics committeeman; Dr. Byron Bing, Pomeroy, delegate; Dr. M. S. Daniels, Pomeroy, alternate.—F. M. Cluff, M.D., secretary.

SCIOTO

Dr. L. H. Van Buskirk, associate instructor in medicine at Ohio State University College of Medicine, Columbus, discussed "Pneumonia, with Special Reference to Sulfapyridine Treatment", at a meeting of the Hempstead Academy of Medicine, Monday evening, February 12, at General Hospital, Portsmouth. A motion picture, "Influence of Gonadotropic Substances on Gonads, Male and Female" was shown.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

Dr. John E. Hoberg, Columbus, gave an interesting talk on "Stones in the Urinary Tract", at a meeting of the Fayette County Medical Society, Thursday, February 8, at Washington C. H.—James F. Wilson, M.D., secretary.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during February:

February 5—"Modern Management of Malignancy of the Lower Gastro-Intestinal Tract", by Dr. Fred W. Rankin, Lexington, Ky.

February 15—Section in General Medicine. "Joe's Roundup", the most interesting cases of 1939 with the usual characteristics, by Dr. Joseph Price and staff of Mercy Hospital.

February 19—"Congenital Pyloric Obstruction",—"Symptoms, Diagnosis and Medical Man-

METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

VI. Measurement of the P-P Factor (Nicotinic Acid)

● Early investigations by the U. S. Public Health Service demonstrated that pellagra may be prevented or cured by dietary regulation. Human subjects confined to an institutional diet known to produce pellagra, were completely protected from this disease by proper supplementation of the institutional diet (1). Ultimately, the existence of the P-P or Pellagra-Preventive factor was established (2).

From the similarity in natural distribution of the dietary factors effective in the control of human pellagra and canine blacktongue—as well as the pathology of these two diseases—the working hypothesis that canine blacktongue is the analogue of human pellagra was adopted (2). Techniques (2, 3) were devised for estimating the pellagra-preventive value of foods by feeding tests with dogs and the results checked by clinical observations with human subjects. The ability of a food to supplement basal diets—known to produce canine blacktongue or human pellagra—so as to prevent or delay the development of characteristic symptoms were the criteria employed for judging the P-P values of foods. Such tests using dogs or human subjects are still the most reliable methods for measuring the P-P potencies of foods (4, 5).

Although pellagra-producing diets may frequently be deficient in a number of

essential nutrients (4, 6), the value of nicotinic acid or nicotinic acid amide for the treatment of the specific symptoms of blacktongue or pellagra is well established (7, 8). Recognition of the importance of nicotinic acid in human nutrition created a definite need for rapid methods of estimating the nicotinic acid content of foods. The possibilities of the reaction between nicotinic acid, cyanogen bromide and aromatic amines as a basis of a colorimetric method for estimating nicotinic acid are receiving consideration (9). However, cyanogen bromide and aromatic amines may react with a number of compounds containing the pyridine ring to produce a yellowish green color. Therefore, it is essential that the specificity of any method for nicotinic acid be clearly established before nicotinic acid values determined by the method can be accepted as indicative of the pellagra-preventive values of foods.

Permanent control of endemic pellagra will require inclusion of a larger number of the protective foods in the pellagrin's diet (4, 6). General improvement of diets by this means will serve to correct not only deficiencies of the P-P factor, but of other essential factors, as well. The value of commercially canned foods in a program designed to correct pellagra—as well as its attendant or secondary dietary deficiencies—might well be emphasized.

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- (1) 1915. U. S. Pub. Health Reports 30, 3117.
1923. Ibid 38, 2361.
- (2) 1926. U. S. Pub. Health Reports 41, 297.
- (3) 1928. U. S. Pub. Health Reports 43, 657.
- (4) 1939. The Vitamins: A Symposium, page 297,
Amer. Med. Assn., Chicago.
- (5) 1934. U. S. Pub. Health Reports 49, 754.

- (6) 1939. J. Am. Med. Assoc. 112, 2581.
1938. Ibid. 110, 1081.
- 1939. Am. J. Digestive Diseases 5, 807.
- (7) 1937. J. Am. Chem. Soc. 59, 1767.
- 1938. J. Nutrition 16, 355.
- (8) 1937. J. Am. Med. Assoc. 109, 2054.
1938. Ibid. 110, 622.
- (9) 1938. Nature 141, 830.
1939. Biochem. J. 33, 264

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-seventh in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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agement", by Dr. Arthur G. Helmick; "Etiology, Pathology and Surgical Management", by Dr. Fred Fletcher; discussion by Dr. E. H. Baxter.—Bulletin.

Officers of the Academy for 1940 are: Dr. Russell G. Means, president; Dr. C. C. Sherburne, president-elect; Dr. Robin C. Obetz, secretary-treasurer; Dr. George T. Harding, chairman, Dr. Donald F. Bowers, Dr. Paul H. Charlton, Dr. I. B. Harris, Dr. Claude S. Perry and Dr. Henry H. Schwarzell, legislative committee; Dr. L. N. Jentgen, chairman, Dr. Richard I. Brashear, Dr. Dana W. Cox, Dr. Jonathan Forman, Dr. Dan Morse and Dr. Donald D. Shira, medical economics committee; Dr. Leslie L. Bigelow, Dr. John M. Thomas, Dr. Harding, Dr. E. J. Emerick and Dr. Harris, delegates; Dr. John E. Brown, Jr., Dr. Obetz, Dr. Link M. Murphy, Dr. Harry E. LeFever and Dr. John H. Mitchell, alternates.—Stanley R. Mauck, executive secretary.

KNOX

Officers of the Knox County Medical Society for 1940 are: Dr. Julius Shamansky, Mt. Vernon, president; Dr. J. O. Crist, Centerburg, vice-president; Dr. John C. Drake, Mt. Vernon, secretary-treasurer; Dr. James F. Lee, chairman, Dr. John R. Claypool and Dr. Robert L. Eastman, all of Mt. Vernon, legislative committee; Dr. F. C. Anderson, Mt. Vernon, delegate; Dr. Lee, alternate.

Dr. Cummings of Kenyon College, Gambier, spoke on "Psychology of Enuresis in Children", at a meeting of the society, Thursday, January 25, at Mt. Vernon.—Julius Shamansky, M.D., president.

MADISON

Madison County Medical Society has selected the following officers for 1940: Dr. W. A. Holman, London, president; Dr. F. A. Lutz, Mt. Sterling, vice-president; Dr. J. W. Hurt, West Jefferson, secretary-treasurer; Dr. H. D. Wright, West Jefferson, legislative committeeman; Dr. W. H. Lee, Plain City, public relations committeeman; Dr. F. E. Rosnagle, London, medical economics committeeman; Dr. Holman, delegate; Dr. R. W. E. Irwin, Mt. Sterling, alternate.—J. W. Hurt, M.D., secretary.

MORROW

Dr. Dwight A. Weir, Mansfield, was guest speaker at a meeting of the Morrow County Medical Society, Tuesday evening, January 9, at the Globe Hotel, Mt. Gilead.—News clipping.

PICKAWAY

The following Circleville physicians are officers of the Pickaway County Medical Society for 1940: Dr. D. V. Courtright, president; Dr. H. D. Jackson, vice-president; Dr. B. N. Coers, secretary-treasurer; Dr. E. L. Montgomery, legislative committeeman; Dr. Jackson, delegate; Dr.

A. D. Blackburn, alternate.—B. N. Coers, M.D., secretary.

ROSS

Dr. Claude S. Perry, Columbus, spoke on "The Eye and General Practice", at a meeting of the Ross County Academy of Medicine, Thursday evening, February 1, at the Warner Hotel, Chillicothe.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

"X-Ray Interpretation", was the subject discussed by Dr. Frank A. Riebel, Columbus, at a meeting of the Ashland County Medical Society, Friday evening, February 9, at the Ashland Country Club.

Officers of the society for 1940 are: Dr. M. D. Shilling, president; Dr. Paul E. Kellogg, president-elect; Dr. H. Wayne Smith, secretary-treasurer; Dr. Geo. M. Emery, Dr. E. L. Clem and Dr. Kellogg, legislative committeemen; Dr. H. M. Gunn and Dr. H. T. Martin, public relations committeemen; Dr. C. B. Meuser, Dr. Geo. P. Riebel, Dr. L. G. Sheets, Dr. G. B. Fuller, Loudonville, medical economics committeemen; Dr. Shilling, delegate; Dr. Kellogg, alternate, all from Ashland except Dr. Fuller.—H. Wayne Smith, M.D., secretary.

LORAIN

Dr. J. Henry Lazzari, Cleveland, spoke on "Cancer Management and Therapy", at a meeting of the Lorain County Medical Society, Tuesday evening, February 13, at the Lorain Country Club.—I. L. Levin, M.D., secretary.

MEDINA

Dr. Harley A. Williams and Dr. Frank S. Gibson, Cleveland, discussed "Gall Bladder Diseases", at a meeting of the Medina County Medical Society, Thursday afternoon, January 18, at the Evanon, Medina.—News clipping.

RICHLAND

"Sinusitis", was the subject of an address made by Dr. C. W. Engler, Cleveland, at a meeting of the Richland County Medical Society, Thursday, afternoon, February 22, at Mansfield General Hospital.—D. D. Deeds, M.D., secretary.

Cincinnati—Speakers at the Mid-South Postgraduate Medical Assembly at Memphis, Tenn., February 15, included Dr. Henry M. Goodyear, associate professor of otolaryngology, University of Cincinnati College of Medicine, who discussed "Factors of Importance to Medical Men in General From the Field of Ear, Nose and Throat", and Dr. Derrick T. Vail, Jr., professor of ophthalmology, who spoke on "Ocular Proptosis",

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, *AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES*, Vol. 23, No. 2, pages 201-206, March, 1939.

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The Physician's Bookshelf

Accepted Foods, and Their Nutritional Significance, a publication of the Council on Foods of the American Medical Association. (\$2.00. *American Medical Association, Chicago*) contains descriptions and detailed information regarding the chemical composition of more than 3,800 accepted products, together with a discussion of the nutritional significance of each class of foods. The book provides also the Council's opinion on many topics in nutrition, dietetics and the proper advertising of foods, and will be a welcome reference book for all persons interested in securing authoritative information about foods, especially the processed and fabricated foods which are widely advertised. **Accepted Foods** is indispensable for the library of every physician concerned with foods and nutrition.

The Health Insurance Doctor; His Role in Great Britain, Denmark and France, by Barbara N. Armstrong. (\$3.00. *Princeton University Press*) covers all the workings of compulsory medical insurance in three countries named. (For detailed comments see page 1222, *The Journal*, Vol. 35, No. 11, November, 1939).

The Vincent Method of Bathtub Exercises, by Vincent Tumminello. (\$3.50. *Pelican Publishing Company, New Orleans, La.*) presents a series of exercises that are to be taken in the bathtub before the morning shower. They are well designed but it would seem that the bathtub is a pretty dangerous place for such things if we are to believe the experience of insurance companies.

Textbook of Nervous Diseases, by Robert Bing, translated by Webb Haymaker, from Fifth German Edition. (\$10.00. *C. V. Mosby Company, St. Louis*) is an excellent text from a master, clearly and interestingly translated.

Psychology and Psychiatry. A Textbook of Normal and Abnormal Human Behavior, by Wendell Muncie, M.D. (\$8.00. *C. V. Mosby and Company, St. Louis*) is "the voice from the workshop" making articulate a good many things that all physicians have learned about "the whole of man" and adding therefore the new things from psychiatry.

Electrocardiographic Patterns, by Arlie R. Barnes. (\$5.00. *C. C. Thomas, Springfield, Illinois*) is a timely book setting forth what are the diagnostic and clinical significance of these patterns.

Tumors of the Hands and Feet, by George T. Pack, M.D. (\$3.00. *C. V. Mosby and Company, St. Louis*) is a timely book because of the importance of these tumors and because of their rarity.

Only by consulting such an authority can we avoid mutilating and incapacitating disabilities, and that we may institute proper life-saving procedures. The author, an Ohio boy, has produced a book in keeping with the high standards of his previous books.

An Introduction to Dermatology, by Norman Walker, M.D. and G. H. Percival, M.D. (\$7.00; Tenth Edition. *Williams and Wilkins, Baltimore*) presents again an excellent outline of the subject, in the best British tradition, with much that is new in radio therapy and allergy.

Cancer of the Larynx, by Chevalier Jackson, M.D. and Chevalier Jackson, Jr., M.D. (\$8.00. *W. B. Saunders Company, Philadelphia*) is written for the reader who wants to get quickly, practical information for the benefit of a particular patient in immediate need of diagnosis and treatment. The authors have succeeded in making the needed facts stand out by means of clear, concise writing and of course good illustrations.

Fractures, by Paul B. Magnuson, M.D., (\$5.00. Third Edition; *W. B. Saunders Company, Philadelphia*) maintains the high standards of the previous editions. Many changes and additions have been made bringing it up to date.

Endocrine Gynecology, by E. C. Hamblen, M.D. (\$5.50. *C. C. Thomas, Springfield, Illinois*) is a complete manual for the general man, and as such it is organized and well written. It is most timely when the field of hormones in sex physiology is filling the pages of medical journals that this material should be prepared for our digestion by experienced clinician and a skillful teacher.

The Physiological Basis of Medical Practice, by C. H. Best, M.D. and N. B. Taylor, M.D. (\$10.00. Second Edition. *Williams and Wilkins, Baltimore*) has undergone four reprintings and revisions in two years. In this brief time it has become the book of reference for many of us. This edition includes a section on the special senses and other new material in keeping with progress.

The Organism. Kurt Goldstein, Columbia University. (\$4.00; *American Book Co., Cincinnati, Ohio*.) The initial chapter takes as the starting point not the individual reflexes but the patient as a whole and his reactions following defects such as brain injuries. Reflex mechanisms are considered only as "parative processes" and are set aside for the broader considerations which the author develops in the subsequent chapters as "the organism in the light of the holistic approach". The functions of the nervous system

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are analyzed in the normal and in the impaired organism. The author emphasizes the thesis that performances are not to be viewed as isolated reactions but as figures against the background of the body and personality. The book continues with a study of the relationship of this approach to Gestalt psychology and to such biologic problems as health and disease, life and mind, knowledge and action.

Dr. Goldstein has written a scholarly volume. He sees an organism facing serious problems in the environment and constantly coming to terms with this environment. In this struggle, individual reflexes and reactions are subordinated to the purposeful striving of the individual. This book shows evidence of intensive clinical observation enlarged by interesting interpretations. It offers a philosophy grown out of neurophysiology and neuropathology. The volume is rich in content and references.

Though not a practical book, it may be recommended to neuropsychiatrists and biologists as worthy of careful study.—Joseph L. Fetterman, M.D.

The Surgery of Injury and Plastic Repair, by Samuel Fomon, M.D. (\$15.00. *Williams and Wilkins, Baltimore*) includes all of plastic surgery, especially the repair procedures that every physician is called upon to undertake in his office. It includes the operative methods developed by the leading authorities throughout the world, and its thousands of illustrations leave no detail in doubt. A "must" book for all who treat the injured.

Proctoscopic Examination and Diagnosis and Treatment of Diarrheas, by M. H. Streicher, M.D. (\$3.00. *C. C. Thomas, Springfield, Illinois*) is just what its title indicates—an illustrated manual of decided worth to all who come in contact with diarrhea.

Principles and Practice of Aviation Medicine, by Harry G. Armstrong, M.D. (\$6.50. *Williams and Wilkins Co., Baltimore*) lives up to its blurb "it presents everything that the student should learn and that the specialist in aviation should know." It is a summary of some 4,000 pages by one who can enrich the work by his own vast research and experience.

Diseases of the Blood, by Joseph Frey, M.D. (\$3.50. *House of Field, New York City*) is a manual told in simple terms.

Diseases of the Heart, by Joseph Frey, M.D. (\$4.00. *House of Field, New York City*) is a concise restatement of factual material known today. Recommended to those who are interested in trying to state medical facts in a simple way.

Dr. Hudson's Secret Journal, by Lloyd C. Douglas (\$2.50. *Houghton, Mifflin Company, Bos-*

ton) is a book which reminds our members of "Magnificent Obsession" and its author who addressed our annual banquet at Dayton. Lloyd Douglas has written "an overture rather than a sequel" to the first book. Like all of his books, it is preaching by means of a narrative—and good preaching, too. The text of course is self-enrichment by service. It will be popular and it deserves it.

Youngstown—A fever therapy cabinet was recently presented to the Mahoning County Medical Society and St. Elizabeth's Hospital by the Youngstown Chapter No. 2, Disabled American Veterans. Dr. R. B. Poling, president, accepted in behalf of the society and Dr. F. W. McNamara, chief of staff, in behalf of the hospital.

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Obstetrics, Gynecology and Abdominal Surgery Society Offers Award

The following rules have been announced governing the award of the annual \$150.00 Foundation Prize of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, by the secretary, Dr. James R. Bloss, 418 Eleventh St., Huntington, W. Va.:

Eligible contestants shall include only (a) interns, residents, or graduate students in obstetrics, gynecology or abdominal surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching obstetrics, gynecology or abdominal surgery.

Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant.

Manuscripts must be limited to 5,000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis. Submit three copies of thesis and illustrations to the secretary.

The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the journal of the author's choice. Unsuccessful contributions will be returned promptly to their authors.

All manuscripts entered in a given year must be in the hands of the Secretary before June 1.

The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation.

The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting.

Awarded \$1000

At the recent session of the American Association for the Advancement of Science at Columbus, Dr. Albert B. Sabin, associate professor of pediatrics at the University of Cincinnati College of Medicine, was awarded the Theobald Smith award of \$1,000 and a bronze medal presented annually by the medical section of the Association "to the young man showing outstanding research in medical science".

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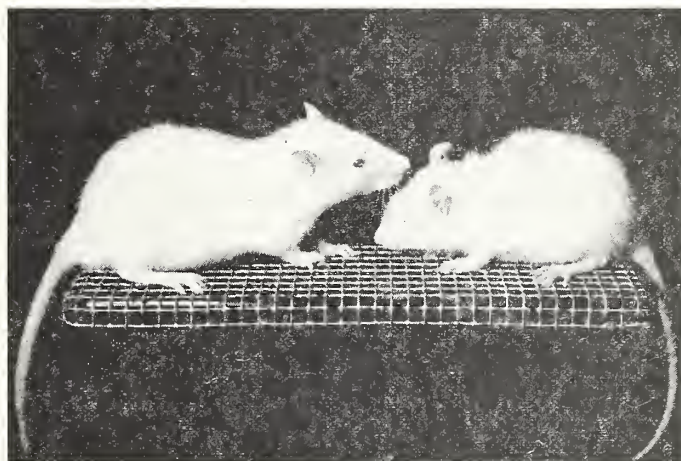
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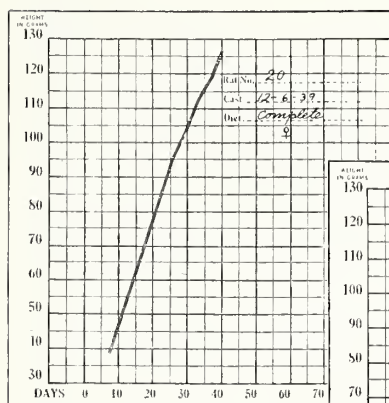


This page is the third of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the March 9 issue of The Journal of the American Medical Association.

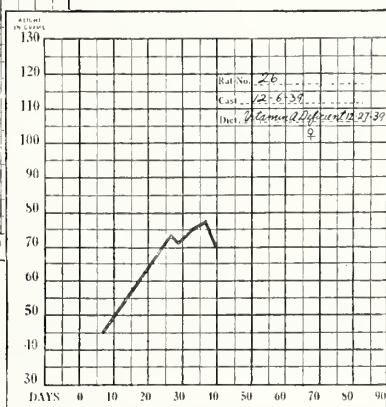
INHIBITION of growth in the rat produced by restriction of vitamin A in the diet. The animals, litter mates, were 21 days old at the start of the experiment which was continued for 33 days. The animal at right received a diet containing all nutritive substances except vitamin A; the animal at left, an adequate diet. Note the xerophthalmia in vitamin A deprived rat.



Retardation of Growth Due to Vitamin A Deficiency



The upper graph records the growth of a rat on a complete diet. The lower graph records the growth of a litter mate on a vitamin A deficient diet; it depicts almost immediate retardation and cessation of growth.



While vitamin A is no more essential for growth than are other indispensable nutritional factors, its deprivation leads to well-defined growth retardation in man as well as in

experimental animals. This action is so predictable that it is employed as a basis for one of the methods of vitamin A assay. The immediate effect of vitamin A deficiency on growth is cessation of endochondral bone formation. The curves reproduced illustrate the prompt growth-inhibiting effect of vitamin A deprivation in rats.



Buckeye News Notes

Ashtabula—Motion pictures of various surgical operations were shown by Dr. H. A. Tagett at a meeting of the Exchange Club.

Ashtabula—New staff officers of General Hospital are: Dr. Noble Crandall, president; Dr. W. J. McCarthy, vice-president; Dr. Carl Streicher, secretary-treasurer, and Dr. A. J. Pardee, Dr. J. H. Park and Dr. R. B. Wynkoop, members of the executive committee.

Athens—Dr. B. B. Backley, Jacksonville, has been named commissioner of the new combined Athens City-County Health District. He will assume the duties of his office upon the completion of a four-months' public health course at the University of Michigan.

Bellefontaine—Dr. A. J. McCracken, city health commissioner for 25 years, has been re-appointed for five years.

Cincinnati—Dr. Davis Lillard was recently installed as Worshipful Master of the College Hill Masonic Lodge.

Cincinnati—Dr. Martin H. Fischer, professor of physiology, University of Cincinnati College of Medicine, addressed the Cuvier Press Club on "Man's Tomorrow". Dr. H. L. Stitt was the toastmaster.

Columbus—Dr. Ruth H. St. John is a new member of the local Board of Education.

Columbus—Dr. Leslie L. Bigelow has resigned as chief of staff of Children's Hospital, but continues as head of the department of general surgery. Dr. E. H. Baxter is the new chief of staff.

Columbus—Recent talks by Dr. Russel G. Means, president of the local Academy of Medicine, include "Dangers of the Common Cold", at the Ohio State University Farmer's Week, and "How to Provide Adequate Medical Care", at an evening meeting of the Broad Street Church of Christ.

Dayton—New staff officers of Good Samaritan Hospital are: Dr. Robert C. Austin, chief of staff; Dr. M. D. Prugh, vice-president; Dr. W. B. Taggart, secretary; Dr. R. D. Arn, chief of surgery; Dr. M. R. Haley, chief of medicine; Dr. W. A. Ricketts, chief of obstetrics.

Dayton—Dr. M. Tischer Horner discussed "The

History of Medicine and its Relation to Civilization", at an adult education session at Southern Hills school.

Dayton—Dr. Clement D. Smith has been named vice-president, and Dr. A. G. Farmer, secretary-treasurer of the hospital admissions bureau of the Dayton Council of Social Agencies.

East Liverpool—Syphilis and gonorrhea were termed not only medical problems, but social and economic as well, by Dr. C. H. Bailey and Dr. F. R. Harrison, at a meeting of the City Federation of Women's Clubs in observance of National Social Hygiene Day.

Findlay—A lecture on "The History of the Advance in Medicine", was given by Dr. Reginald S. Rilling at a meeting of The Court, local men's literary club.

Fremont—New officers of the medical staff of Memorial Hospital are: Dr. F. L. Moore, president; Dr. M. M. Riddell, vice-president, and Dr. E. C. Swint, secretary.

Greenfield—"Life Begins at 40", was the subject discussed by Dr. Walter Felson at a meeting of the Mother's Club.

Lodi—A medical staff has been established at Lodi Hospital, with Dr. Harry Streett, Litchfield, president, and Dr. J. L. Jones, Medina, secretary.

Lorain—New officers of St. Joseph's Hospital staff are: Dr. Clarence H. Frederick, president; Dr. M. E. Kinsman, vice-president, and Dr. W. W. Tilock, secretary.

Martins Ferry—Dr. Charles B. Messerly was presented with a monogrammed gold football upon his retirement as team physician for the local high school, a post which he has filled since 1904.

Mansfield—Dr. Leopold Adams suffered three fractured vertebrae in a fall on the ice as he was leaving his office recently.

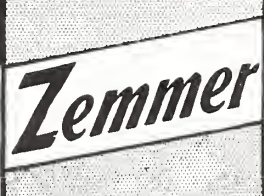
Marion—Extensive damage, estimated as amounting to approximately \$4,000, was caused by a fire recently in the offices of Dr. Thomas H. Sutherland.

McConnellsville—Officials of the Morgan County Board of Health include Dr. D. G. Ralston, president; Dr. C. E. Northrup, health commissioner

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*Journal American Medical Assn.,
Vol. III, No. 22, Nov. 26, 1938.



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Middletown—Dr. E. T. Storer spoke on "Fallacies and Superstitions of Medicine", at a meeting of the Ramblers' Club.

Salem—Officers of the Salem City Hospital staff for 1940 are: Dr. J. M. McGeorge, Salem, president; Dr. Chester W. Dewalt, Columbiana, vice-president; Dr. Guy E. G. Byers, Salem, secretary-treasurer, and Dr. Harry Bookwalter, Columbiana, member of the advisory committee.

St. Marys—Dr. Harry S. Noble discussed "Discoveries of Medicine", at a meeting of the St. Paul's Men's Association.

Toledo—Dr. Norris W. Gillette reviewed advances in medicine and surgery at a meeting of the Whitehouse Commercial Club.

Van Wert—Dr. J. R. Jarvis conducted a round-table discussion on "Maternal and Child Hygiene" at a meeting of the class in Home Hygiene and Care of the Sick, sponsored by the local Red Cross chapter.

Wapakoneta—Dr. Fred Berlin spoke on "Tuberculosis" at a meeting of the Mother's Club.

Washington C. H.—Dr. Earl J. Powers is taking a year's postgraduate course in surgery at New York Medical College.

Washington C. H.—Dr. James E. Thompson spoke of the importance of the work of the Board of Health at a Health Day meeting of local pupils and teachers.

Youngstown—In-patient admissions to the North and South Side Units of Youngstown Hospital in 1939 were the largest in its history, numbering 11,516, an increase of approximately 20 per cent over the previous year.

Youngstown—Dr. Walter J. Tims, public health chairman of the Junior Chamber of Commerce, stressed the importance of correct information about syphilis and gonorrhea in connection with the opening of "Social Hygiene Week".

Trips to the Altar

Recent marriages of Ohio physicians include the following: Miss Mary Clawson, Hamilton, and Dr. George L. Parkin, Cincinnati; Miss Ruth Clark Headington, Mt. Vernon, and Dr. Henry W. Brown, Jr., Cincinnati; Miss Elsie Cahill, Halifax, Nova Scotia, and Dr. John Glorioso, Lima; Miss Eleanor Marie Schneider and Dr. Arthur P. McDonald, Dayton; Miss Tillie Gaydos, Campbell, and Dr. Joseph B. Kupec, Youngstown; Mrs. Katherine Gallagher and Dr. George Edward Follansbee, Cleveland; Dr. Esther C. Marting and Dr. Howard D. Fabing, Cincinnati; Miss Florence Ruth Harthill, Cleveland, and Dr. Donald E. Leonard, Cuyahoga Falls; Miss Mary Ellen Brown, Bloomingsburg, and Dr. A. D. Blackburn, Circleville; Miss Eileen Gallagher, Chicago, and Dr. J. F. Denning, Steubenville; Miss Violet R. Hallerman and Dr. Dewey H. Reps, Cincinnati.

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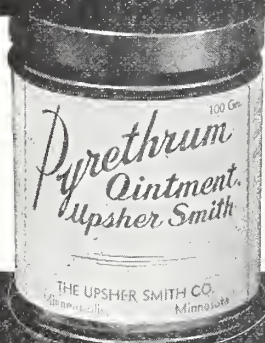
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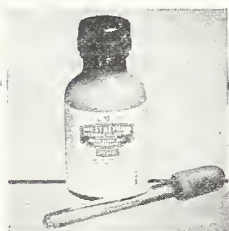


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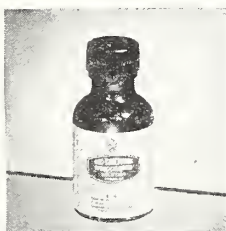


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Interesting Birth Statistics Issued By U. S. Bureau of Census

A recent report by the Bureau of the Census, Department of Commerce on "Live Births by Person in Attendance" in each state of the United States for the year 1938, reveals that of the 112,667 live births in Ohio during that year, 59,783 or 53.1 per cent, were attended by a physician in a hospital; 52,662, or 46.7 per cent, by a physician not in a hospital; 173, 0.2 per cent by a midwife, and 49, less than one-tenth per cent, attendant not specified. Live births in urban areas numbered 74,025 and in rural areas, 38,642. In the urban areas, 73.8 per cent of the live births were attended by a physician in a hospital; 26 per cent by a physician not in a hospital and 0.2 by a midwife. In the rural areas, 13.3 per cent were attended by a physician in a hospital; 86.5 per cent by a physician not in a hospital; 0.1 per cent by a midwife, and 0.1 per cent, attendant not specified.

Total live births in the United States during 1938 was 2,286,962, of which 1,098,530, or 48 per cent were attended by a physician in a hospital; 956,879, or 41.8 per cent by a physician not in a hospital; 217,917, or 9.5 per cent, by a midwife; 13,636, or 0.6 per cent, attendant not specified. Urban live births numbered 1,121,394, of which 78.1 per cent were attended by a physician in a hospital; 19.6 per cent by a physician not in a hospital; 2.2 per cent by a midwife and 0.1 per cent, attendant not specified. In the rural areas of the United States, there were 1,165,568 live births, of which 19.1 per cent were attended by a physician in a hospital; 63.3 per cent by a physician not in a hospital; 16.6 per cent by a midwife and 1.0 per cent attendant not specified.

Finnish Relief Fund Request

Ohio officials of the Finnish Relief Fund, Inc., have requested *The Journal* to call to the attention of the members of the Ohio State Medical Association the nation-wide effort, headed by Herbert Hoover, to raise funds for the relief of the distressed people of Finland. Professor Eugene Van Cleef, chairman of the Finnish Relief Fund for Ohio, is actively engaged in the organization of local committees throughout the state. All subscriptions will go directly in their entirety to Finland, since the overhead costs have been provided by special funds. Subscriptions may be made to local committees, newspapers, or directly to the Finnish Relief Fund for Ohio, 280 South Front St., Columbus.

Youngstown—Dr. Samuel Wood Weaver gave a talk on "Brain Tumors", at a meeting of the Medical-Dental Bureau Doctors' Secretaries Association.

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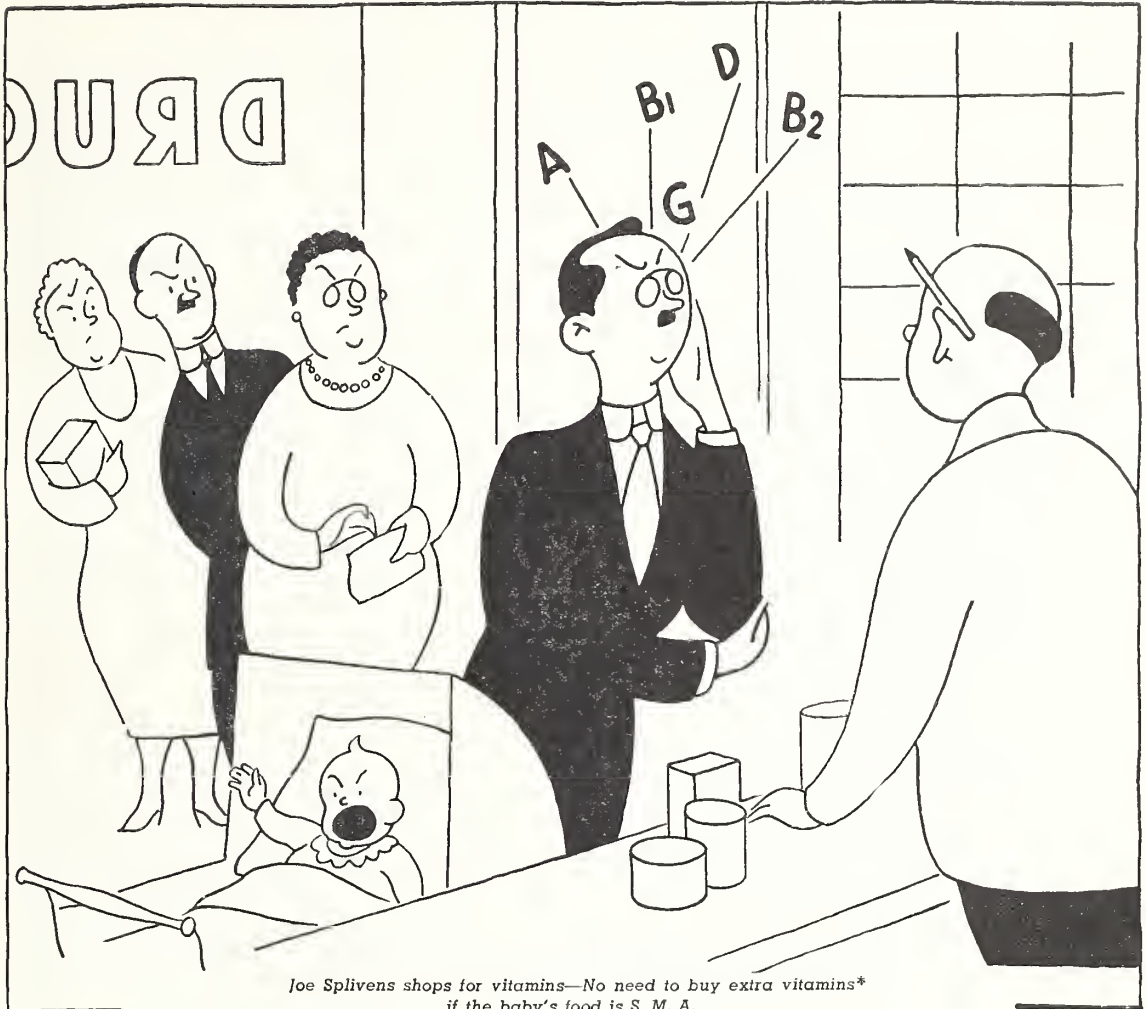
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Parran Issues Rules Governing Use of Venereal Disease Funds

States now utilizing Federal funds for venereal disease control work must comply with seven general provisions, according to a recent announcement by Surgeon General Thomas Parran of the U. S. Public Health Service. They are:

1. State and local laboratories receiving funds shall demonstrate that serologic tests for syphilis performed by them have a satisfactory sensitivity and specificity rating.

2. Laboratories receiving Federal money shall provide services for venereal diseases on the same basis as for other communicable diseases.

3. Health departments and clinics receiving funds shall provide free diagnostic and treatment facilities for (a) the diagnosis and emergency treatment of all patients who apply; (b) all patients referred by a private physician either for continued treatment or for consultative advice and opinion; (c) all patients unable to afford private medical care.

4. Antisyphilitic drugs shall be distributed free upon request to all licensed physicians.

5. Diagnostic and treatment facilities shall be available to all persons whether from the particular state or some other location.

6. Properly qualified full-time venereal disease control officers shall be employed by the State Department of Health and all municipalities receiving funds.

7. State health officers shall give due consideration to the relatively higher prevalence of syphilis in urban areas.

"These standards constitute the basic framework around which it is hoped the complete program for the control of the venereal diseases will be developed", Dr. Parran said. "The Public Health Service will judiciously enforce the minimal standards stemming from these recommendations with due regard to varying local conditions, and with appreciation of the human problems involved."

Physician Artists To Hold Show

The American Physicians' Art Association composed of over 800 physicians in the United States, Canada and Hawaii who follow some form of fine or applied art as an avocation, will hold its next annual art show at the Belmont-Plaza Hotel, New York City, June 10-14. This exhibit is held in conjunction with the American Medical Association meeting to be held at the same time in New York City. To become a member of this Art Association a physician may join by mailing a check for one dollar to the treasurer, Dr. R. W. Burlingame, San Francisco County Hospital, San Francisco, Calif., and briefly state what art medium the applicant follows. For detailed information write to the executive secretary, Dr. F. H. Redewill, 526 Flood Bldg., San Francisco, Calif.

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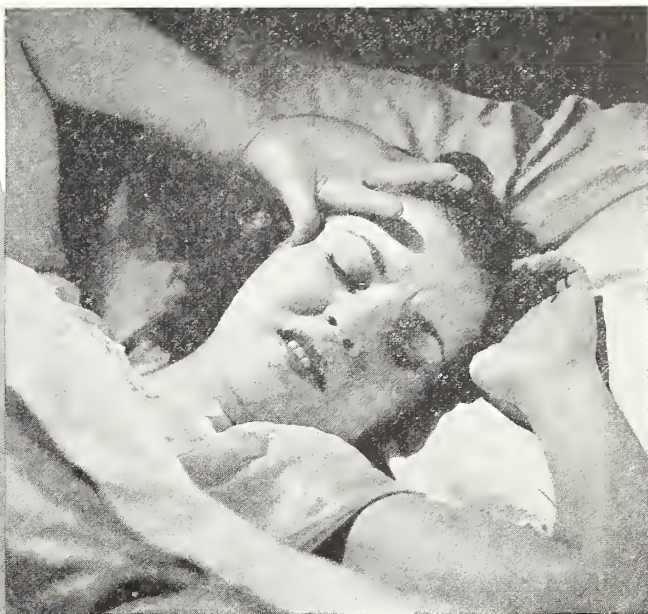
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A. P. H. A. Report on Educational Qualifications of Health Officers

The American Public Health Association has recently adopted a report on the Educational Qualifications of Health Officers made by its Committee on Professional Education. The committee recommended that candidates for appointment as health officer should be graduates of approved medical schools who have completed successfully not less than one year of internship in an approved hospital and in addition a course of not less than one year of graduate instruction in a university, leading to a degree in public health; further, that recognition be given to the fact that practical experience in public health administration is an essential part of the education of a health officer, and that great achievement can usually be attained only after long experience. It was felt that these facts should always be taken into consideration in the selection of health officers, particularly where the position is one of great administrative responsibility.

In making these recommendations for the future guidance of officials responsible for the appointment of health officers and for the guidance of individuals looking forward to careers in public health, the American Public Health Association stated that it expressly recognizes the professional standing of persons now performing creditable service as health officers.

Copies of the report can be secured without cost by addressing the American Public Health Association, 50 West 50th St., New York City.

\$300 Prize Award Offered Again By Association for Study of Goiter

The American Association for the Study of Goiter again offers the Van Meter Prize Award of \$300.00 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held at Rochester, Minnesota, on April 15-17, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed 3,000 words in length; must be presented in English; and a typewritten double-spaced copy sent to the Corresponding Secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pa., not later than March 15.

A place will be reserved on the program of the annual meeting for presentation of the prize award essay by the author if it is possible for him to attend. The essay will be published in the annual proceedings of the Association. This will not prevent its further publication, however, in any journal selected by the author.

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The Diagnosis and Treatment of Jaundice

T. E. NEWELL, M.D., and M. TISCHER HOERNER, M.D.

THE significance of a proper diagnosis in liver disease need not be emphasized. A knowledge of the physiology of the biliary tract is of prime importance and is a fundamental consideration in determining what type of disorder is encountered.

Jaundice, or icterus, is a condition which is met with under various circumstances but mainly in diseases of the liver or bile ducts. The bile which is present in the circulating blood, tinges all of the tissues of the body, as well as the excreta, and causes certain general symptoms. Jaundice of itself is evidence of disturbance in the formation or in the excretion of bile.

A review of the microscopic anatomy of the liver lobule is of prime importance because it is the pivot on which the mechanism of jaundice is based. The cells of the parenchyma of the liver are arranged around small canals or bile capillaries and on the opposite side of these cells are the blood vessels. These structures may be shown diagrammatically as in Fig. 1.

It is generally accepted that bilirubin is formed from broken down hemoglobin. This destruction of blood pigment takes place in the reticulo-endothelial system rather than in the parenchymal cells of the liver. However, the bile pigment is excreted by the liver and during this process bilirubin is in some way modified. Some investigators insist that there are distinct chemical differences and suggest the terms hemobilirubin and cholebilirubin to designate the two types of pigment (Fig. 2). It has been argued that the liver acts as an excretory organ with respect to bilirubin, just as the kidney does with respect to urea.

The Authors

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According to this theory of the metabolism of bile, it is possible to attribute abnormal increases in the bilirubin content of the blood to three general types of disease conditions which occur separately or in combination: (1) those in which bilirubin is produced in such excess that it accumulates in the circulation without having passed through the polygonal cells of the liver, as in hemolytic jaundice (Fig. 3); (2) those in which, due to toxic or infectious injury to the hepatic parenchyma, the bilirubin which is formed normally may not only fail to be excreted, but that which has passed through the polygonal cells of the liver may be partially reabsorbed, as in intrahepatic jaundice (Fig. 4); and (3) those in which there is mechanical occlusion of the biliary passages, and as a result, the bilirubin that has passed through the vascular channels and polygonal cells of the liver is reabsorbed by lymph and blood, as in obstructive jaundice (Fig. 5).

It can be readily understood that any marked

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obstruction to the extrahepatic biliary passages could not exist for a prolonged period without some injury to the hepatic parenchyma, and conversely, there could not be a pure intrahepatic form of jaundice without some obstruction of the small biliary passages. While in clinical practice mixed types of jaundice are seen, one or the other of the conditions already described usually predominates. No laboratory test has been devised that will yield a conclusive

malaria blackwater fever, lobar pneumonia, and icterus neonatorum (Fig. 3). It is important to recognize that these conditions as a rule are associated with a typical acholuric jaundice and that deep jaundice and high values for bilirubin are rarities unless the liver also is injured.

Direct-reacting bilirubin is present in the blood serum when there is mechanical obstruction to bile ducts by tumor, stone, cicatrix, infectious lesions, or extrinsic pressure. However, in intrahepatic jaundice the van den Bergh test may give a direct or an indirect reaction, or it may be diphasic. Catarrhal jaundice is of this type, as is jaundice attributable to parasitic or spirochetal infections of the liver, drugs, industrial poisons or cirrhosis.

SERUM BILIRUBIN

The relative intensity of the jaundice is important in determining the degree of involvement as well as the type of jaundice. For practical purposes it may be assumed that the bilirubin normally present in the blood serum gives an indirect van den Bergh reaction (Fig. 2) and exists in amounts varying from 0.1 to 2.0 milligrams per hundred cubic centimeters of blood.

The highest values for serum bilirubin (from 30 to 50 mg. per hundred cubic centimeters) are found in acute severe hepatogenous forms of jaundice and in neoplastic biliary obstruction. Intermediate values (from 10 to 30 mg. per hundred cubic centimeters) are detected in the milder degrees of hepatic parenchymal lesions and in conditions in which intermittent or partial biliary obstruction exists. The lower grades of bilirubinemia (from 2 to 10 mg. per hundred cubic centimeters) are discovered in subsiding acute intrahepatic jaundice, in very chronic forms of hepatitis, such as those which sometimes follow

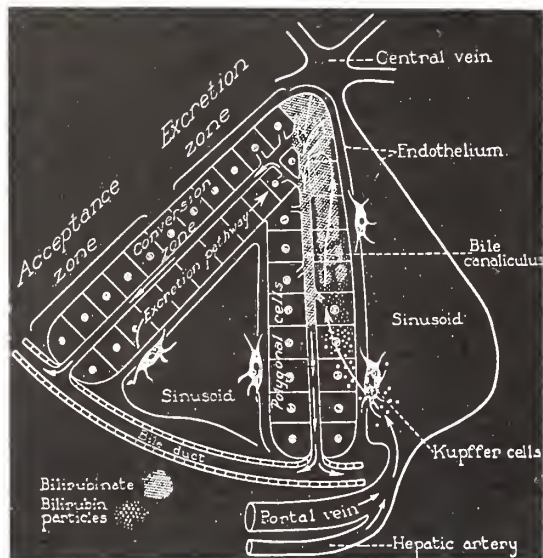


Fig. 1 Schematic drawing of liver lobule illustrating the relation of blood vessels, polygonal cells of liver and bile capillaries to each other in the formation of bile.

diagnosis, but there are several that provide collaborative data and serve as a guide for proper treatment.

VAN DEN BERGH REACTION

The bile pigment normally present in the blood serum gives an indirect reaction to the van den Bergh test, while that which has passed through the liver and has re-entered the circulation gives a direct reaction. It is evident that the polygonal cells of the liver lobule are the vital structures upon which the mechanism of jaundice depends. It is generally considered that a direct van den Bergh reaction is evidence of obstruction to the flow of bile into the intestine, and that an indirect reaction indicates an excessive destruction of hemoglobin on the opposite side of the liver cells.

One encounters indirect van den Bergh reactions in the following conditions: pernicious anemia, familial hemolytic jaundice, acute hemolytic anemia, sickle-cell anemia, paroxysmal hemoglobinemia, transfusion of the wrong type of blood, phenylhydrazine poisoning, cardiac decompensation (especially in the presence of gross pulmonary infarction), hemolytic septicemia,

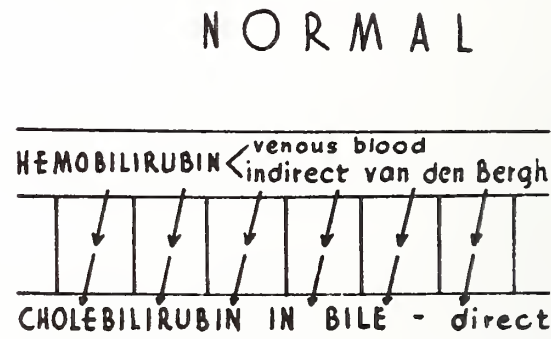


Fig. 2—Hemobilirubin is the bile pigment normally present in the blood serum. During its passage through the polygonal cells of the liver it is modified to cholebilirubin.

biliary obstruction or prolonged intrabiliary infection, in the various forms of portal cirrhosis and syphilitic hepatitis, and in infectious forms of cholecystitis without gross biliary obstruction. Here the marked regenerative capacity of the

liver plays an important part in producing a milder degree of jaundice.

UROBILINOGEN AND UROBILIN

Some clinicians insist that the van den Bergh test is not required in order to determine on which side of the liver cells the pathology is

EXCESSIVE DESTRUCTION OF HEMOGLOBIN

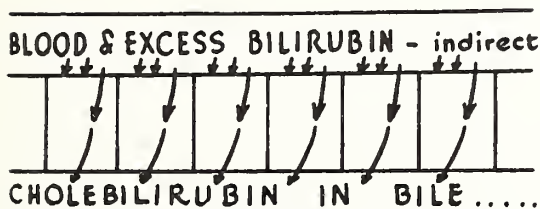


Fig. III—Excess hemobilirubin cannot be excreted. It accumulates in the circulation and gives an indirect reaction to the van den Bergh test. Some cholebilirubin forms normally.

located. They claim that for all practical purposes sufficient information can be obtained to make a diagnosis from the serum bilirubin or icterus index, which show the amount of bile pigment present in the blood, and determinations of the presence or absence of bile and urobilin in the urine and stool.

Urobilinogen normally is formed in the intestine by the bacterial decomposition of the bile pigment (Fig. 6). Some of the urobilinogen is absorbed and is carried by the portal blood back to the liver. A portion of this material may be used in the synthesis of hemoglobin, but the

HEPATITIS

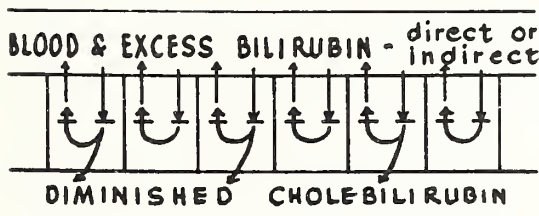


Fig. IV—A portion of the normal hemobilirubin is not excreted. A diminished amount of cholebilirubin is formed and this may be partially reabsorbed by the lymph and blood.

major part is excreted in the bile. If no bile pigments reach the duodenum via the bile ducts because of the presence of complete biliary obstruction by stone or new growth, the formation of urobilinogen ceases and therefore this sub-

stance disappears from the bile, stool, and urine. Urobilin is not excreted as such in the urine but may be demonstrated by exposing the urine to sunlight when any urobilinogen will be converted to urobilin. The presence of urobilinuria then is evidence of the presence of bile in the intestinal tract.

According to Watson¹² there is normally from .5 to 2 mg. of urobilinogen excreted in the urine daily and the normal content of the feces is from 40 to 280 mg. per day. Thus it is seen that the liver removes nearly all the urobilinogen from the portal blood and only small amounts escape into the systemic circulation to appear in the urine.

The reserve capacity of the liver for the excretion of urobilinogen is slight. Mild degrees of hepatic injury or damage therefore suffice to permit the escape of urobilinogen into the systemic circulation, and it is excreted in the urine.

BILIARY OBSTRUCTION

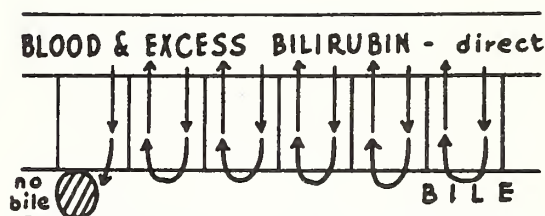


Fig. V—The biliary channels are obstructed. The cholebilirubin which is formed is reabsorbed by lymph and blood.

This explains why increased urobilinuria is frequently noted in cases of jaundice due to hepatitis or to incomplete obstruction of the common duct by stone. Increased urobilinuria may be observed in portal cirrhosis when hepatic damage is present and when the accompanying collateral venous channels permit the flow of urobilinogen from the portal vessels into the systemic circulation without passing through the liver.

In blood dyscrasias, pneumonia, pulmonary infarction, hemolytic jaundice, and other conditions in which there is marked destruction of hemoglobin, increased excretion of bile pigment, and excessive formation of urobilinogen, the consequent flooding of the liver is usually assumed to explain the increased urobilinuria. In such instances the urobilinogen progresses freely through the liver into the lesser circulation. From there it passes successively into the aorta, renal arteries, and kidneys and is finally excreted in the urine. On the other hand, Watson^{13,14} is of the opinion that the urobilinuria seen in hemolytic types of jaundice is not necessarily due to

flooding or overloading of the liver but to functional disturbance of the liver cells.

GALACTOSE TOLERANCE TEST

The galactose tolerance test is also of considerable value. The test is based on the fact that the ability of the injured liver to utilize galac-

If more than 3 gms. are excreted it is a fairly definite indication that there is an intrahepatic lesion present. However, failure of the test to reveal an abnormal concentration of the sugar does not always exclude the possibility of the presence of intrahepatic jaundice, for this may be the outcome of the test when the hepatic lesion is improving or when a great amount of hepatic parenchyma has been regenerated. On the other hand, the test reveals an excessive amount of galactose in the urine in association with the late stages of biliary obstruction.

CHOLESTEROL AND CHOLESTEROL ESTERS

Manke⁸ and Epstein³ emphasized the results obtained by study of the cholesterol and cholesterol esters in the blood of jaundiced patients. In cases of obstructive jaundice, hypercholesterolemia is generally found and roughly parallels the degree of bilirubinemia. However, when cholesterol esters are determined, their concentration is usually within normal limits or only slightly increased. Hypocholesterolemia is the rule in intrahepatic jaundice and is frequently in direct relation to the degree of hepatic injury. Furthermore, cholesterol esters are present in low concentrations or are absent.

DYE TESTS

Various dye tests have been devised for the determination of hepatic function. Because of the many functions of the liver, difficulty is encountered in obtaining an efficient method. However, the bromsulfalein test is one of the most satisfactory dye tests for hepatic function yet devised, and is simple in the extreme. Five milligrams of the dye per kilogram of body weight is injected intravenously and a specimen of blood is collected one hour later. The amount of the dye present in the blood serum is determined by transverse comparison of the serum with standard tubes in a colorimeter.

In more than ten thousand tests of this type, Snell and Magath¹¹ reported that there was a retention of the dye in 96 per cent of the cases in which there was evidence of parenchymal hepatic injury or even moderate mechanical obstruction of the bile ducts. This test gives results which roughly indicate the extent of parenchymal damage, and the determinations are sufficiently accurate to yield valuable information if the test is repeated at intervals during the course of the disease.

As stated before, these tests are not diagnostic in themselves, but when added to the other available data, they are of diagnostic importance, as well as of value in suggesting the proper method of treatment.

INTRAHEPATIC JAUNDICE

The treatment of intrahepatic jaundice is chiefly medical. If the etiologic agent can be de-

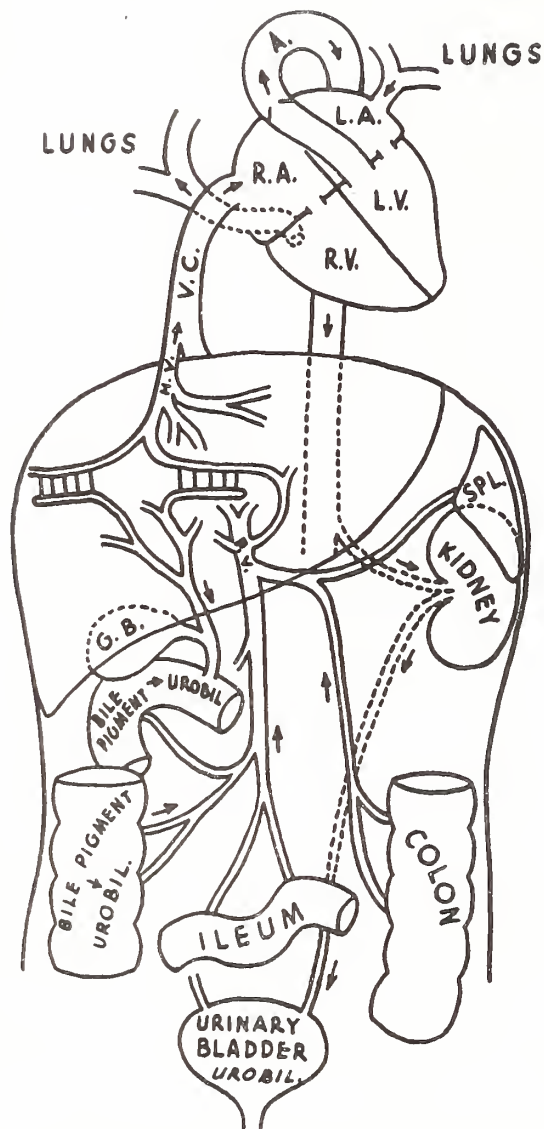


Fig. VI.—Urobilinogen is formed in the intestine by the bacterial decomposition of bile pigment. It is absorbed from the intestinal tract and carried to the liver by the vessels of the portal circulatory system. After passing through the liver, the urobilinogen enters the lesser circulation. It then progresses successively into the aorta, renal arteries, and kidneys and finally is excreted in the urine.

tose is diminished. It has been shown that the normal adult can utilize 37 to 40 gm. of galactose without developing glycosuria. Consequently, 40 gms. of galactose in 500 cc. of water are administered by mouth and specimens of urine collected every hour for five hours. The total reducing substance in the urine is then calculated.

tected and eliminated, most individuals recover completely. Patients who develop cirrhosis of the liver during the course of treatment with arsenical preparations usually show marked improvement when the use of the drug is discontinued. Similar results are noted in cases of cinchophen poisoning, but the outcome is not always as favorable.

Experimental and clinical evidence has demonstrated that carbohydrates have a protective influence on the liver and as a result, they are better tolerated than any other nutrient substance. On the other hand, the mortality of animals in which experimental hepatic lesions have been produced is extremely high when they are fed a diet high in proteins. Consequently, this type of food should be avoided when treating patients who are already suffering from the effects of a damaged liver. The value of intravenous glucose can not be emphasized too strongly in the management of severe types of intrahepatic jaundice. Even in the advanced stages of the disease when signs of hepatic insufficiency, such as drowsiness, increasing jaundice, and the presence of leucine or tyrosine in the urine have appeared, marked symptomatic improvement often results from the administration of large quantities of glucose by vein.

Lactic acid in the form of sodium lactate has been given also in cases of this type and the results obtained seem to indicate that it may be another therapeutic agent of considerable value. The rationale of this mode of therapy is that if carbohydrates are offered to the liver in a partially metabolized form, the amount of work required during the process of assimilation will be decreased.

The use of cholagogues in the treatment of intrahepatic jaundice is contraindicated in the acute forms of the disease. In the presence of hepatogenous lesions of a chronic nature such chemical agents may do as much harm as good.

Everyone is acquainted with the general response made by patients suffering from intrahepatic jaundice following a transfusion of blood. The importance of such therapy in the jaundiced patient and the probable mechanisms responsible for the beneficial effects of the treatment are beginning to be understood and will be discussed⁷ later.

Surgical intervention is rarely indicated in the intrahepatic form of jaundice. If the jaundice is of the painless variety and the bile passages are patent, little is to be gained by operation in most cases. In doubtful instances it is better to defer radical treatment until the acute phase of the disease is passed. Not infrequently, such patients reveal definite evidence of subacute atrophy of the liver, or are recovering within a few weeks

after the onset of the illness. The additional time spent under observation will do much to clarify the situation.

However, surgical drainage of the biliary ducts has been employed with rather remarkable results in a few instances in which patients have had intrahepatic jaundice of exceptional severity, or in which jaundice has persisted for a long period in spite of the best of medical treatment. Haberer⁴ has expressed the belief that cholecystostomy is the best operation for the condition, and he reported 17 cases in which treatment was by this method; 15 of the patients recovered. Hortolomei and Pavel⁵ made exploration for carcinoma of the head of the pancreas and found that they were dealing with intrahepatic jaundice. They then performed cholecystoduodenostomy and the patient made a complete recovery. Pavel⁹ is of the opinion that reflex spasm of the sphincter of Oddi and not an intrahepatic lesion is the real underlying process in certain cases of long standing jaundice. Pathologic changes in the duodenum, choledochus, and head of the pancreas are responsible for this reflex spasm. While repeated duodenal drainages were of value in relieving the jaundice in his patients, surgical intervention played an important part in the treatment in some instances. In such cases he employed various operations which diverted the flow of bile elsewhere than through the ampulla of Vater.

In addition to these procedures, omentopexy by the Talma-Morrison method, or splenectomy, may be indicated in certain cases of portal cirrhosis. However, such operations are primarily directed toward relief of the vascular lesions of cirrhosis.

HEMOLYTIC JAUNDICE

Since splenectomy has been instituted in the treatment of hemolytic jaundice, the results have been remarkable, for usually, the patients obtain quick and permanent relief from their symptoms. The jaundice disappears; excretion of urobilin diminishes; and the blood count returns to normal. Moreover, the resistance of the red blood corpuscles is increased but often not quite to normal values. There is an adequate physiologic explanation of the benefits derived from splenectomy, for several investigators have demonstrated the role played by the spleen in the destruction of erythrocytes and in the formation of bilirubin. Furthermore, it has been shown that while ordinarily the bilirubin content of the blood from the splenic vein is the same as or but slightly increased over that in the blood from the splenic artery, in hemolytic jaundice an increase of 3 or 4 mg. per 100 cubic centimeters of blood may be observed in the former.

When dealing with the acquired form of the disease a careful search should be made for conditions that might be of etiologic significance.

Even after splenectomy has been performed, it is well to eradicate all foci of infection. Emphasis should also be placed on the fact that rarely should surgical interference be attempted during an acute phase of the disease.

OBSTRUCTIVE JAUNDICE

The differential diagnosis of obstructive jaundice is difficult at best and no one is infallible. Too much emphasis should not be placed on the presenting symptoms, for pain as well as jaundice will be found in a high percentage of malignant conditions, while benign lesions are sometimes associated with painless jaundice. Consequently, since surgical intervention has been so beneficial in many instances, exploratory operation is warranted if there is a reasonable chance of the patient withstanding it.

The risk of operation on the biliary structures is naturally increased when the procedure is undertaken after the development of an obstruction of the biliary tract and of an associated infection in the liver and pancreas. Relief of the underlying condition is the first consideration when dealing with obstructive lesions of the biliary tract and operative measures to relieve the obstruction should be instituted as promptly as possible after preoperative preparation. The optimum time for operation in patients with obstructive jaundice is when the serum bilirubin is decreasing or has reached a level after successive lower determinations. Surgical intervention in the face of rising serum bilirubin values entails a much higher risk.

COMPLICATIONS

Hemorrhage: For the most part failure to recover from biliary operations is attributable to hemorrhage or hepatic insufficiency. The cause of the hemorrhagic tendency in jaundiced patients, although under almost constant study, has never been definitely determined. However, recent investigations have cast a great deal of light upon the problem and have suggested rational methods of treatment. It has been found that anoxemia of the anoxic variety is a fairly constant accompaniment of advanced parenchymal hepatic disease. Furthermore, although proof is lacking, there is some evidence to show that the degree of oxygen unsaturation of the arterial blood in general reflects the condition of the patient. It is possible that anoxemia, when associated with hepatic disease, may have a deleterious effect on the progress of the hepatic lesion itself. Consequently, if the anoxia persists, the liver is likely to be extensively injured and as a result the tendency to bleed will be materially increased.

In order to treat jaundiced individuals intelligently, it should be borne in mind that the anoxemia, when present, may be of two types;

(1) anoxic anoxia, which can be corrected by placing the patient in oxygen, and (2) anemic anoxia, which will respond to the transfusion of blood. In the latter instance there is not only an absolute anemia, as is shown by the decrease in the amount of hemoglobin present, but also a relative anoxia, because the ability of the hemoglobin to carry oxygen is diminished in certain cases. It can easily be realized that under the latter circumstances, which appear to exist only in the anemic patients, administration of oxygen alone cannot relieve the situation. On the other hand, marked benefit is apparently derived even from the comparatively small amount of blood given in the transfusion.⁷

Recently Butt and Snell¹ and Snell¹⁰ have emphasized the importance of another factor which may be responsible for the bleeding in jaundiced patients. They state that the hemorrhagic tendency in these individuals is due to a deficiency of prothrombin. In their opinion, the deficiency of prothrombin is attributable to failure of absorption or utilization of a substance which has been termed vitamin K. This material is normally present in the diet and requires bile for its absorption. From a clinical standpoint, the administration of vitamin K together with bile or bile salts to patients who have jaundice has reduced elevated prothrombin times to within normal limits and has had an inhibitory effect on actual bleeding.

Hepatic insufficiency or cholemia is another serious complication that should be kept in mind when dealing with obstructive jaundice. It has been observed by several clinicians that deeply jaundiced patients often remain in fairly good condition before operation but that after surgical relief of the obstruction to the flow of bile, intense toxemia develops and is rapidly fatal. The true nature of this condition is difficult to explain. Counseller and McIndoe² have described the marked degree of dilatation of the biliary passages that occurs in cases of complete obstruction, as well as the associated parenchymal lesions. They also suggested that there is a reduction in the portal flow of blood, which may be partly responsible for the hepatic cellular atrophy that is seen in these cases. Consequently, when the obstruction is removed, the pressure in the common bile duct decreases and presumably the stasis of the portal circulation is relieved. Increased blood flow through the liver may wash out into the systemic circulation toxic substances resulting from previous hepatic damage, which are injurious to the kidneys and the capillary walls. Although this explanation of "cholemia" or "hepatic insufficiency" is theoretical, it deserves consideration, for except in a few cases, the condition cannot be satisfactorily explained on an anatomic basis alone. It has been suggested that in order to alleviate this dangerous condi-

tion that the biliary system should be gradually decompressed.

SUMMARY

Knowledge of the physiology of jaundice is of fundamental importance in determining the type of disorder encountered. Bilirubin is formed from broken down hemoglobin, through the agency of the reticulo-endothelial system, and is then excreted by the liver. The polygonal cells of the liver are responsible for transfer of the pigment and during this process bilirubin is modified. On the basis of this theory of the metabolism of bile pigment, jaundice may be divided into three types: obstructive, intrahepatic, and hemolytic jaundice. Careful evaluation of symptoms and laboratory aids is essential in making a differential diagnosis.

The results obtained by splenectomy in patients with hemolytic jaundice are spectacular. Intrahepatic jaundice is primarily a medical problem. The results of operation justify exploration in cases of obstructive jaundice if the patients can be prepared to withstand the procedure. Transfusion of blood and oxygen therapy are of value in the control of the anoxemia and of the tendency to bleed that are associated with many cases of advanced hepatic disease. The administration of vitamin K together with bile or bile salts to patients who have jaundice has an inhibitory effect upon the bleeding tendency exhibited by many of these individuals. Selection of the proper time for operation and institution of special preoperative and postoperative care have greatly reduced the surgical mortality in cases complicated by jaundice.

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Nephritic Edema

Renal edema in contrast to that of cardiac edema, does not involve the serous cavities so frequently. This is a clinical observation; however it again lends support to the supposition that the edema of kidney disease confines its presence to the tissue and tissue spaces. Perhaps the earliest manifestation of a renal disturbance in nephritis, is the inability of the kidney to concentrate the urine. There is usually the passing of copious amounts of urine of low specific gravity. This diuresis is shown clinically by the patient being unable to pass through the night, without being required to empty the bladder on numerous occasions, during the hours of sleep. It may be true that a nephritic patient shows next an early tendency to pass increasing quantities of albumin in the urine, as a compensatory measure, to increase the concentration of the urinary output. I do not believe that the presence of albumin in the urine, is present because of damage to the glomerular tuft primarily, however I do believe this to be one of the very important bits of evidence, showing the power of the kidney to make a functional adjustment to a low urinary concentration. Urine loaded with albumin has a higher specific gravity, disregarding the quantity passed, than does a specimen containing no albumin. On many occasions it has been pointed out as accepted fact, that filtration of the urine through the glomerulus is a physical process, in which the pressure of the circulating blood is an extremely important factor. In this physical-chemical process, the filtration is rendered more difficult, as by partial or complete occlusion of a large number of the glomeruli. The elevation of the blood pressure, in a measure tends to overcome this difficulty. I do believe that an increase in blood pressure is a good criterion to the presence of actual glomerular tuft damage. That is to say, that the albumin in the urine is the index to the functional alterations that have taken place as a compensatory factor, while the increase in the systemic blood pressure, is on the other hand a good indication as to what one might expect to find as pathological changes demonstrable in the kidney cortex.

The retention of non-protein nitrogen, as evidenced by a rise in blood urea, must be attributed to the glomerular filtration process.—Robert Jeffries, M.D., Atchison, Kansas. *Jour. Kansas Med. Soc.*, Vol. XXXIX, No. 12, December, 1938.

The Treatment of Certain Allergic Manifestations as Medical Emergencies

J. WARRICK THOMAS, M.D.

THE question of allergy in some of its more acute manifestations has been considered as a medical emergency, especially the severe cases of bronchial asthma or status asthmaticus. There are certain cases of atopic dermatitis or dermatitis medicamentosa which are so marked that it is necessary to institute drastic therapeutic measures. Hay fever cannot in the usual case be considered as a medical emergency. However, in exceptional cases of pollen sensitivity, where the patient is being desensitized with a pollen extract and when such a patient gets too large a dosage of the antigen mixture, he may have very marked allergic manifestations showing the characteristic symptoms of hay fever and, at times, in the more severe reactions, urticarial lesions and asthmatic symptoms. Such cases are not in the true sense what we would call definite hay fever although the symptoms are very similar. Unless measures are instituted to control such a reaction, the patients may go on into shock.

When patients are placed on a program of hyposensitization, not only with pollens but with other allergens, they do encounter reactions which require immediate measures in order that their symptoms may be controlled. The typical example of such a condition is that of a person who may receive too large a dose of an extract, such as dust, feathers and orris root. I have seen one such patient following the progressive increase of dosage at each injection, have a definite constitutional reaction after receiving 0.2 cc. of a 1:10,000 extract. It is true that most individuals are able to tolerate such a dosage without the precipitation of alarming symptoms, but we have to be on the lookout for the unusual.

In reviewing a few of the fundamental principles of allergy, we have to understand the meaning of the word "allergy". The term "allergy" was coined by Von Pirquit in 1905 following the publication of a monograph by Schick and himself, dealing with serum disease. The word "allergy" is derived from the Greek meaning "altered reaction", or "altered activity", or "altered reactivity". Anaphylaxis is the term usually applied to animals expressing a state of anaphylactic sensitivity or reaction as compared with the term allergy as applied to man.

SERUM SICKNESS AND DISEASE

I shall not go into the question of serum sickness and disease except to stress certain prophylactic

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lactic measures and some of the means of controlling reactions. First, I should like to define the following terms: Serum Sickness and Serum Disease.

Serum Sickness is an allergic reaction resulting from the parenteral administration of a foreign serum, and is characterized by an incubation period, skin eruption, fever, edema, polyarthritis and enlarged lymph glands. There are three phases of serum sickness. First, the immediate reaction which is the explosive type and occurs usually on reinjection after the usual incubation period, up to about four months. The second, or the accelerated reaction, is the type immediately following a reinjection. The third, serum atopy, is seen in the naturally sensitized person who has had no serum but is sensitive to horse dander.

Serum Disease may be defined as the anaphylactic shock or constitutional reaction which may follow the reinjection of horse serum or may occur on first injection in the atopic individual who is sensitive to horse dander.

Prophylactic measures include the determination of one's sensitivity by skin testing as well as the administration of desensitizing doses of serum. The patient should be scratch-tested in the beginning with a 1:10 dilution of serum and if, after 20 minutes, the scratch reaction remains negative, a conjunctival test is made with the same 1:10 dilution in physiological saline. If this be negative after 8 or 10 minutes, the endermal or intracutaneous test is performed. Positive tests are usually found to show up in from 10 to 20 minutes. All of this may appear to be unnecessary or to complicate the procedure and may give negative results in several hundred cases. However, this is more necessary than in any other form of allergy in order to protect the patient from a generally recognized cause of unnecessary death.¹ Studies should always be done on the arm when the endermal tests are instituted. It is necessary that one have on hand epinephrine or adrenalin 1:1,000 with

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syringes and tourniquet available. Adrenalin in doses of 0.5 cc. to 1.0 cc. should be given in the flank subcutaneously and may be repeated after five minutes if the patient does not show a definite response to the drug. The causes for fatal serum reactions may be summarized as follows:

- (1) Failure to recognize the harmful potentialities.
- (2) The failure to test for sensitization.
- (3) Unjustified attempted short cuts in the process of desensitization.

EMERGENCY TREATMENT IN ASTHMA²

The clinical picture of severe asthma is characterized by a marked collapse with constant extreme dyspnea to the point of exhaustion. I should like to mention briefly the mechanism of the allergic shock. There is usually some allergen which the patient is previously sensitive or sensitized to which precipitates the trouble. This is to a large extent the same principle as outlined above under serum sickness. In the case of the asthmatic crisis, the manifestations of allergic shock are characterized largely by the involvement of the respiratory system or primarily the pulmonary tissue. The route of entry of the various allergens may be through the nose, by the gastrointestinal tract, absorbed through the mucous membrane of the eye, or usually by injection. Occasionally, one will observe other manifestations of allergy in addition to the asthma such as urticaria and gastro-intestinal symptoms with vomiting and diarrhea which may be attributed to some food, drug, or inhalant. The pathology of severe asthma is that of the production of tenacious mucus causing obstruction of the bronchi. Death usually results from asphyxiation. It was described by the early writers as a marked bronchospasm which may or may not, in itself, produce bronchial obstruction or a contraction of the bronchial lumen. Occasionally, in the cases of asthma resulting in death, the patient develops areas of bronchial pneumonia. Lamson and Butt³ feel that the heart plays a very minor part, if any, in the cause of death in allergic asthma; almost all allergists agree with them.

TREATMENT OF SEVERE ASTHMA OR STATUS ASTHMATICUS

When a patient is unable to obtain any relief from the administration of epinephrine or adrenalin in large doses, or if other drugs fail to control their asthmatic symptoms, it is then necessary to consider more drastic measures of therapy. I will briefly outline some measures that may be instituted in such cases.

(1) **Environmental Factors.** The patient should be placed in a room that is as free of the usual offending allergens as possible, such as dust, feathers, etc., whether he is known to be sensitive to such substances or not. Hospitalization is

necessary in the severe cases in order to have multiple therapeutic measures available. The diet should consist of nourishing foods, eliminating those known to cause the patient trouble. The feedings should be small; the heaviest meals of the day should always be in the morning or at noon, rather than in the evening.

(2) **Psychotherapy.** These individuals should be encouraged and fear should be eliminated insofar as possible. Frequently, if one cannot win the patient's confidence and keep him from becoming panicky, the treatment is less satisfactory. The patient should have complete rest and, as far as possible, visitors should be kept from his room.

(3) **Helium and Oxygen** has been found to be very worthwhile in some cases and is usually administered in a mixture of 80 per cent helium and 20 per cent oxygen. A special apparatus is usually necessary. The purpose of such an apparatus is to avail the patient of the mixture of helium and oxygen without the presence of nitrogen which lessens the efficiency of the mixture. The mask as described has been found to cause the patient little concern and does not give him the sensation of being smothered, as certain types of masks do. He has his mouth free so that he can talk or take foods and fluids. The cost is not as high when helium and oxygen are administered by this method as compared with the old tent method which made it practically prohibitive.

(4) **Ether and Oil.** Ether and oil are usually administered per rectum in equal parts. The average adult dose is from 5 to 7 ounces and in children the dose ranges from ½ to 2 ounces. It should be administered slowly over a period of some 20 minutes.

(5) **Aminophyllin.** Aminophyllin is administered intravenously in varying dosage, from 3 gr. to 7½ gr. It is usually put up in 10 cc. ampules (3½ gr.) and 20 cc. ampules containing 7½ gr. This drug is administered very slowly and usually one is able to observe a definite relaxation of the patient along with a feeling of well-being. If the drug be administered too rapidly, there will be a sensation of intense heat throughout the entire body and this usually subsides when the flow of the drug in the vein is stopped temporarily. Occasionally, patients get adequate relief of symptoms without administering the full ampule. Frequently I have observed patients to obtain relief after an injection of this drug over a period of two or three times, but subsequently they seem to build up a tolerance to the drug and their symptoms may be only partially relieved. Then, other forms of treatment should be instituted. If this drug gets out of the vein, there is intense local burning and irritation and ulceration may result.

(6) **Sucrose and Epinephrine intravenously.** Fifty per cent sucrose is usually administered in 50 cc. doses with 0.5 cc. of epinephrine (adrenalin) and should be given very slowly intravenously. If this drug extravasates from the vein, it not only causes a thrombosis but it is a potential area of local necrosis or ulceration. Symptoms usually subside immediately or to some extent when this drug is administered.

(7) **Amyl Nitrite.** Occasionally in isolated cases, amyl nitrite may be administered by having the patient break a perle in a sponge and then inhaling the fumes until the face is markedly reddened or there is a peripheral

capillary dilatation. Occasionally this will cause some relaxation of the bronchial musculature.

(8) **Oxygen.** Oxygen may be administered in the form of the oxygen tent or by catheters in the nose. Oxygen is usually administered in from 4 to 7 liters per minute and in some cases, especially if cyanosis is present, the patients show some improvement of the cyanosis as well as some slight general improvement. I have had patients who insist that oxygen be continued especially by the catheter method as they felt that they were deriving a definite benefit. In most cases I prefer the catheter method of administration to the tent as the patients do not have the feeling of claustrophobia.

(9) **Glucose and Saline** are given intravenously, usually in the form of 50 per cent glucose. If a patient is not dehydrated it is felt that this will lessen the secretion of the tenacious bronchial mucus and may be of benefit in some few cases. The second method of administration of glucose is that of 10 per cent glucose and saline given intravenously, usually in amounts of from 500 to 1,000 cc. at an injection. This will prevent dehydration, especially in patients who are unable to take water or other fluids by mouth.

(10) **Opiates** should not be given in the severe cases of asthma, or in the mild cases as they have a tendency to inhibit nature's mechanism of eliminating the accumulated mucus in the bronchial tree and they also inhibit the action of the respiratory center. Frequently, they cause nausea and vomiting and increase the patient's respiratory symptoms secondarily. In the majority of cases, however, they cause a marked diminution of the respiratory rate and cases have been reported of patients dying from the use of certain opiates.

(11) **Avertin** may be given in doses of 60 to 90 mgm. per kg. of body weight. I have found this drug to be very satisfactory as it enables the patients to relax and get the much needed rest that they are deprived of frequently for a great number of hours. It gives them a sense of well-being and patients can be given injections of coramine intravenously which will usually counteract the avertin effect and will bring them from under the anesthetic. The above measures are usually instituted when a patient becomes adrenalin-fast, that is, not reacting to the usual dosage (0.5 to 1.0 cc.) of epinephrine, and when it is necessary to give him some for relief.

(12) **Bronchoscopic Examination.** Occasionally in the severe cases of status asthmaticus bronchoscopic examination is instituted and the plugs of mucus are removed, thus facilitating the patient's aeration.

(13) **Hyposensitization.** Waldbott and Asher⁴ have had very satisfactory results by instituting a program of rapid hyposensitization in the offending allergens, especially in one instance during the hay fever season following several injections of a specific extract. This form of treatment is very dangerous unless instituted properly under controlled conditions.

In summarizing the treatment of the severe asthma, the following points are stressed:

(A) Complete rest and freedom from the introduction of allergens in the form of inhalants, foods, drugs, etc., to which the person is or may be sensitive.

(B) Hospitalization and the institution of other

forms of therapy when the patient has become adrenalin-fast.

(C) Specific hyposensitization in certain instances under accurately controlled dosage.

URTICARIA AND ANGIONEUROTIC EDEMA

Urticaria may necessitate the institution of immediate measures for the control of symptoms which may become alarming as well as dangerous to the patient. Such instances may especially occur in individuals having giant hives or an associated angioneurotic edema involving the glottis as well as other localized areas throughout the body. These symptoms may occur following ingestion, inhalation, or contact with certain allergens. I have observed such symptoms to occur following the routine methods of skin testing. One was in a patient who was found to be sensitive to the pea-bean group of foods. Following the scratch test she developed giant urticarial lesions with associated angioneurotic edema of the face and tongue. It was necessary to give her repeated doses of epinephrine in order to control her symptoms.

Another patient, a white woman 30 years of age, experienced an acute angioneurotic eczema of the eyes and urticarial lesions of the face and neck following exposure to cologne used as a perfume. She had five recurrent attacks of marked angioneurotic edema of the eyes, attributed to cologne. She was found acutely sensitive to orris root and was instructed to eliminate all cosmetics. When certain cosmetics were again included in her toilet, she experienced a definite exacerbation of her symptoms. The symptoms were not as pronounced, however, as those following the exposure to cologne.

Summarizing the possible types of treatment to be considered I would suggest the following:

1. Hospitalization, in severe cases.
2. Rest, both mental and physical.
3. Local applications of either hot or cold saline compresses.
4. Repeated doses of epinephrine.
5. The use of ephedrine plain, or if the patient is not sensitive to the barbituric preparations such as amytal, phenobarbital, etc., they may be used along with the ephedrine.
6. The elimination of any known or suspected foods causing trouble, and, if symptoms persist, the starving of the patient, permitting only water and parenteral fluids. The use of the elimination diet as outlined by Rowe but modified to some extent by eliminating the number of foods taken in the diet.
7. Potassium chloride has come into prominence recently and good results have been reported in several instances of giant urticaria and angioneurotic edema.
8. Immediate hyposensitization if definite allergens are known.
9. Occasionally it is necessary to institute other symptomatic measures of therapy.

ATOPIC DERMATITIS

The term atopic dermatitis, also known as neurodermatitis, atopic eczema or allergic

eczema, is employed to designate an inflammatory condition of the skin characterized by thickening of the skin or lichenification, especially involving the flexures, and occurring in an atopic individual as the result of sensitization to water-soluble allergens, brought to the skin by the hematogenous route.⁵

There are certain cases of atopic dermatitis that may be considered medical emergencies, especially when the lesions are generalized and there is much fluid loss or when secondary infections are present. I will deal lightly with this subject as I wish to list only a few of the measures that may be employed in its treatment.

1. Prevention of fluid loss or dehydration by adequate fluid intake by mouth and if such be impossible, by proctoclysis, hypodermoclysis and the infusion of glucose in saline.

2. Topical application of certain drugs such as mild salves or ointments. The example of such a preparation is boric acid ointment, lanolin, and in certain cases, mild tar ointments. These patients should be placed under a cradle with no clothing and kept warm by placing an electric light in the cradle. Any known or suspected foods causing trouble should be eliminated from the diet and in certain instances, trial diets may be instituted. In certain of these cases, sedatives are necessary but should be given only when the patient is known not to be sensitive to them. Sedatives of preference are such preparations as sodium bromide and chloral hydrate given in moderate doses, or if barbituric acid preparations are tolerated they may be given.

While dealing with the subject of skin lesions I should like to mention one case of dermatitis medicamentosa in a white man who had recurrent attacks following the ingestion of some preparation containing possibly phenolphthalein. The treatment of such a patient is to eliminate the offending agent and to institute symptomatic treatment until the acute symptoms are alleviated. Hyposensitization is found to be worthwhile in individual cases where the specific allergens are known, i.e., dust, pollens, orris root, etc.

SUMMARY

The significant points of this paper may be summarized as follows:

1. Certain allergic conditions that may be considered as medical emergencies are discussed.

2. The terms Serum Sickness and Serum Disease are interpreted, and prophylactic measures are suggested.

3. The clinical picture of severe asthma or status asthmaticus is presented with an outline of treatment.

4. Urticaria and angioneurotic edema are mentioned, bringing out the clinical manifestations with the presentation of a case of marked angioneurotic edema controlled by allergic management.

5. Atopic dermatitis is considered relative to management of its more severe forms, with an illustrative case.

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Industrial Dermatoses

In most cases our difficulty arises in establishing a positive proof of the probable industrial nature of a given dermatosis. We must consider or ask ourselves the following questions before making a definite diagnosis:

1. Was the dermatitis present at the time when the employee was exposed to an industrial cause?

2. Does the dermatitis disappear or improve within a reasonable period of time after the employee is not exposed to the industrial cause?

3. Does the dermatitis show a tendency to recur or exacerbate when the worker returns to the identical industrial exposure, after a certain period of absence?

4. Does the dermatitis appear first in, and is it confined to, the areas of maximum exposure?

5. Is the character and localization of the skin lesion correspondent to the character and localization of the dermatitis known to have been caused, in other cases, by exposure to the same hazards?

6. Do the cutaneous tests produce the reaction of the same fundamental nature as the dermatosis under investigation.

7. Does the dermatosis appear soon after the employee begins work?

It must, however, be borne in mind that the presence of a non-industrial dermatosis by no means excludes the possible co-existence of an industrial dermatitis. Moreover, the existence of a non-industrial dermatosis may predispose to industrial dermatitis.

On the other hand, we must not be in error in calling a dermatosis of industrial origin, until it shall have been proved such. A patch test should not be considered inclusive, for a positive reaction may be due to improper application if the irritant and the test never accurately reproduce the condition of actual industrial exposure. A reaction may mean, simply, sensitivity of the skin to certain substances when applied in a certain concentration and manner at a certain time to a certain site, while the same substance may be incapable of causing dermatosis in the actual condition of industrial exposure.—Edmund G. Bagnulo, M.D., Pittsfield, Mass.; *Ind. Med.*, Vol. 9, No. 1, January, 1940.

Leucocytosis Following Sulfapyridine Administration

Report of One Case

W. T. WILKINS, JR., M.D., and W. W. WEIS, M.D.

FOLLOWING a simple appendectomy during the course of an upper respiratory infection, a robust white male of 24 developed a type II pneumococcus pneumonia of the left lower lobe. Sulfapyridine was given in the usual dosage by mouth; i.e., 8 gms. the first day, 6 gms. the next and 4,4,2,2,1.5 gms. daily respectively thereafter in divided doses, each with 0.66 gms. (10 gr.) sodium bicarbonate. A total of 29.5 gms. of sulfapyridine was administered over an eight-day period; 100,000 units of type II anti-pneumococcic serum (Felton) was also given during the first 12 hours of the disease. Since the patient was a sufferer of asthma and hay-fever the serum was given intramuscularly, and in divided doses. The signs and symptoms of pulmonary infection promptly subsided and the patient was on the road to recovery when an unusual turn of events occurred:

Associated with a moderately severe serum sickness, including urticaria and generalized arthritic pains, on the evening of the sixth day of sulfapyridine therapy the oral temperature rose to 101.2°F. and there was a marked rise in the white count, from 14,700 to 20,200, with a coincident shift to the left in the Shilling count. Previous to this day, as can be observed by reference to the accompanying charts, there had been only a slight fever or none for four days and the white count had steadily declined from 19,000 at the onset of the pneumonia to 13,300. Now, however, with disease signs and symptoms subsiding (except the serum reaction), the white blood cells again began to increase in numbers. A peak of 34,300 was reached nine days from the beginning of sulfapyridine medication (18 hours after sulfapyridine had been stopped), and five days from the time when the blood began to show unaccountable leucocytic reaction. The differential count at this time was: segmenters 50 per cent, stabs 33 per cent, juveniles 7 per cent, eosinophiles 4 per cent, lymphocytes 6 per cent.

The day before this count was made (see blood chart) the erythrocytes began to disappear rapidly from the blood and the red count fell almost two million cells during the three following days. It is interesting to observe that this three-day period coincides with that of improvement in the granular cell picture; the white count falling, as the cellular anaemia increased. A diminishing red cell count, however, had been in progress for several days before this sharp fall occurred. In fact, it began two days before

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myelogenous cell stimulation was suggested by the blood findings.

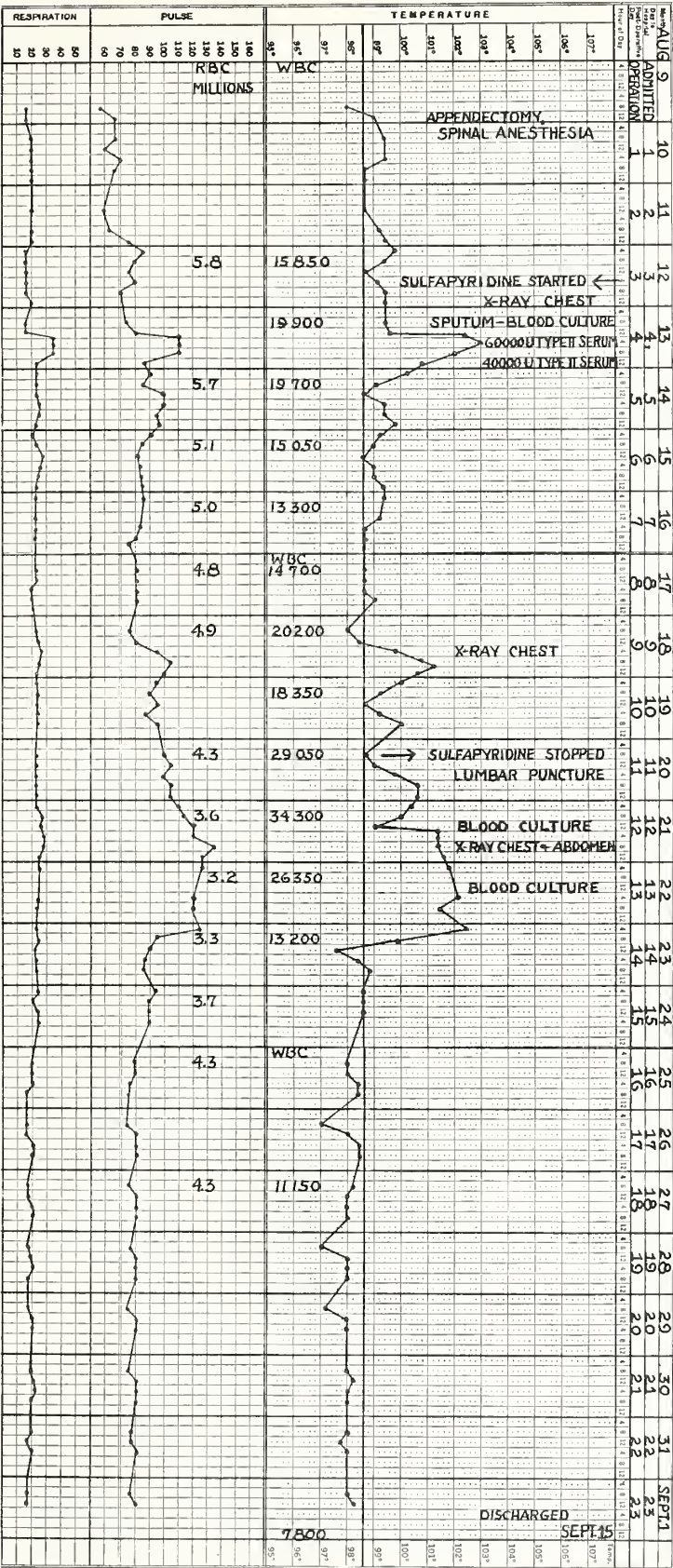
Beginning one day after discontinuing sulfapyridine, there was a steady daily fall in the white count and improvement in the differential count and Shilling percentages. The red cells began to rise on the third day and continued thereafter to increase in numbers.

During these blood changes no evidence of disease could be found on careful physical examinations, X-rays of the chest, spinal fluid examination, and blood cultures. The throat was nega-

BLOOD COUNTS, SHOWING DAILY VARIATIONS

Date	R.B.C.	W.B.C.	Segmenters	Stabs	Juveniles	Eosinophiles	Lymphocytes	Mononuclears
Aug. 12	5,890,000	15,850	64	18	2		15	1
Aug. 13		19,900	68	23	1		7	1
Aug. 14	5,720,000	19,700	66	22	3		8	1
Aug. 15	5,120,000	15,050	52	35	2	1	9	1
Aug. 16	4,970,000	13,300	53	28		2	13	4
Aug. 17	4,850,000	14,700	64	16			1	18
Aug. 18	4,990,000	20,200	47	30	2	2	16	3
Aug. 19	4,120,000	18,350	43	19		9	26	3
Aug. 20	4,390,000	29,050	50	27	2	6	14	1
Aug. 21	3,760,000	34,300	50	33	7	4	6	
Aug. 22	3,250,000	26,350	63	21	2	6	6	2
Aug. 23	3,280,000	13,200	65	13	1	6	13	2
Aug. 24	3,780,000	10,750	60	10	1	3	21	5
Aug. 25	4,320,000	12,250	56	8		2	32	2
Aug. 26	4,110,000	12,000	54	9		7	28	2
Aug. 27	4,320,000	11,150	47	11		5	33	4
Sept. 15	4,320,000	7,800						

tive. There was no lymphadenopathy in the neck or elsewhere. The chest by physical examination and X-ray was clear except for the small area of resolving consolidation in the left lower lobe. The abdomen was healed and without tenderness or distension. Digestion was good. The temperature and pulse rate were elevated; the



former reaching 102.4°F., the latter, 135.

The day before the patient's discharge from the hospital, 15 days after the beginning of his secondary leucocytosis and 12 days after sulfapyridine had been discontinued, the white count was 11,100 and the red count 4,320,000. Two weeks later, the white count was 7800 and the patient was apparently entirely recovered. A count was taken again after two weeks was normal.

Lextron and vitamin B complex capsules, 6 each daily, were the only therapeutic measures taken except discontinuing sulfapyridine and forcing fluids in great quantity, and the administration of dicalcium phosphate, ephedrin sulfate and epinephrine for the control of the serum reaction.

SUMMARY

A severe polymorphonuclear leucocytosis associated with a rapidly developing cellular anemia followed the ingestion of 29½ grams of sulfapyridine, administered in divided doses over a period of eight days. Both conditions improved promptly when the drug was withdrawn.

Horse serum had been administered intramuscularly. A moderately severe serum sickness was present during the period when the leucocytosis was approaching its highest levels. The symptoms of anaphylaxis persisted for a week after the white count had begun to subside.

No medication other than vitamins, liver extract with iron, calcium, ephedrin, and epinephrine was given.

CONCLUSION

It seems likely that sulfapyridine had something to do with this blood cellular reaction, since it cannot be ascribed wholly either to disease, serum reaction or medication: viz.: (1) a polymorphonuclear leucocytosis with shift to the left of the Shilling differential count, associated with (2) a rapidly advancing cellular anaemia.

Fever Therapy at the Ohio Girls' Industrial School at Delaware

Preliminary Report

D. S. COWLES, M.D.

WITHOUT delving into the history and development of fever therapy with both of which there is now wide acquaintance, this paper deals with the results obtained by high fever combined with chemotherapy in the treatment of systemic and congenital syphilis and other conditions among the girl wards of Ohio's Industrial School at Delaware, Ohio.

Upon admission to this institution, which is conducted for the care of female children 10 to 18 years of age and which has an average population of about 450, girls who show evidence of syphilitic or gonorrheal infection are segregated immediately and put on treatment. In cases of gonorrhea, the patient is first given Gonococcus Bacterial Antigen (Lilly-Krueger-UBA), and then sulfanilamide, 20 to 50 grains daily. These two methods of treatment are used as tolerated for eight to twelve weeks and then, if smear tests remain positive, fever therapy is begun. During this entire procedure, local treatment is used—douche, localized heating, and medication—as indicated.

If syphilitic infection is known or suspected, or if the first test is positive, the following procedure is employed. Potassium Iodide, 15 gtts., is given three times each day for two weeks and, simultaneously, mercury inunctions (mercurial ointment the size of a pea) daily for two weeks. Also during this period of medication, there are intramuscular injections twice a week of mercuric iodide (red-Merrell) gr. 1/6/

This routine is followed by intramuscular injection of Bismuth Sodium Tartrate (2 cc. of a 1½% solution) or Bi-Na-As-Col representing 50 mg. of elemental Bismuth and 10 mg. of

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pentavalent arsenic, or Bi-Na-Gluconate representing 25 mg. of elemental Bismuth twice each week until a remission has occurred. The latter two are new drugs supplied by the Drugs Products Co. which for some patients, are less irritating. Bi-Na-As-Col is used when intravenous arsenic is not tolerated well. At the same time one intravenous injection of Neoarsphenamine (Winthrop neo-salvarsen) 0.45 gram is given once each week for six weeks, followed by 0.90 gram each week for six weeks if there has been no remission or sign of improvement with the original dosage. This, then, is followed by weekly injections of mapharsen 0.04 gram intravenously for six weeks and then 0.06 gram for the next six weeks at weekly intervals.

This plan of treatment is varied according to the patient's tolerance and reactions. If there is no response as shown by an improvement in serological tests, fever therapy by electromagnetic induction is begun in conjunction with the chemotherapy. It is becoming more and more evident that the earlier fever therapy is instituted, the sooner serological improvement is demonstrated.

Following is a chart of the above procedure:

weeks	Potassium Iodide	Mercury (Blue Mass size of pea)	Mercuric Iodide (1-6 gr.) (Red-Merrill)	Bismuth Sodium Tartrate 2cc. of 1½% sol. or Bi-na-as-col or Bi-na-Gluconate	Neo-arsphenamine 0.45 (Winthrop Neo-salvarsan)	Neo-arsphenamine 0.90 (Winthrop Neo-salvarsan)	Mapharsen .04	Mapharsen .06
1 to 3	15 gtts. t.i.d. (3 times a day)	Inunction Daily	2cc. Intra-Muscularly 2 each week					
3 to 9				Intra-Muscularly 2 each week	Intra-Venous 1 each week			
9 to 15				Intra-Muscularly 2 each week		Intra-Venous 1 each week		
15 to 21				Intra-Muscularly 2 each week			Intra-Venous 1 each week	
21 to 27				Intra-Muscularly 2 each week				Intra-Venous 1 each week
	(Fever Therapy combined with →)			Intra-Muscularly 2 each week	and one	of the above	each week as	tolerated)

It was because of the unsatisfactory results from chemotherapy alone that it was decided to install equipment for electropyrexia and a survey of medical literature showed that the simplest, safest, and most effective method appeared to be by electromagnetic induction. At first, the heat

FEVER THERAPY
HYPERPYREXIA RECORD

D. V., Age 17, Treatment No. 3: Date 6-17-39.

Time	Temp.	Pulse	Resp.	Cab. Temp.	Nourishment-Medicine	Remarks
7:10	98.4	76	16	100		
7:50	100.6	102	20	105		
8:10	103.6	114	24	107		
8:20	104.8	116	34	110	Sedative No. 5 (½ gr. Phenobarbital) Hypo-pantopon (1/3 gr.)	
8:30	105.5	120	34	112		
8:35	105.8	116	26	110		
8:45	105.8	116	26	108		
8:55	106.6	120	26	110		
9:05	106	120	24	108		
9:15	106.4	120	24	108		
9:25	106.8	120	24	106		
9:35	106.4	120	24	108	Hypo-pantopon (1/3 gr.)	
9:45	106.5	122	24	110		
9:55	106.6	120	24	106		
10:05	106.9	120	24	104		
10:15	106.8	120	24	105		
10:25	106.6	124	24	104		
10:35	106.2	122	24	104		
10:45	106	120	24	100		
10:55	106	122	24	104		
11:05	106.4	122	24	104		
11:15	106.4	120	24	100		
11:25	106.4	122	24	100		
11:35	106.6	124	24	106		
11:45	107	128	26	100		
11:55	106.8	126	26	100		Raised Lid
12:05	106.6	122	24	98		
12:15	106	130	22			
12:30	104.8	118	20			
12:40	104	110	20			
1:00	102.8	110	18			
1:30	101.2	106	18			
2:00	99.8	94	18			
2:30	99	80	16			

generating unit was used with blankets as a means of insulating the patient against heat loss, but in September, 1938, an air-conditioned cabinet was added to the apparatus, and in 1939, the second such cabinet and heat generating unit was installed.

PREPARATION

For two days preceding fever treatment, the patient takes dextrose and sodium chloride ad-

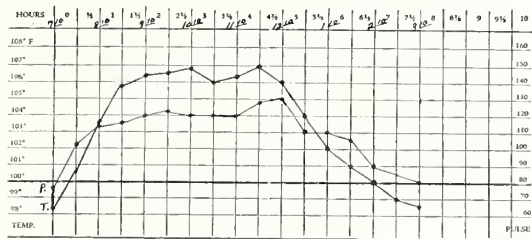


Chart 1

ministered in a broth which is prepared from the following formula (Milton H. Schmitt, M.D., Garfield Park Community Hospital, Chicago, Ill.):

Sodium Chloride	gms.	X
Dextrose	gms.	XXX
Gelatin (plain)	gms.	XXX
Beef Bouillon (cube)		1
Water	qt.	1

We have modified the Schmitt formula a little. The following are our instructions to patients:

For two days before treatment do the following:

1. Drink 1 quart of water in addition to the usual fluid intake.
2. Drink also 1 quart of this formula:
Salt 3 level teaspoonfuls
Karo syrup 6 level tablespoonfuls
Knox's sparkling gelatin 1 oz.
Juice of 1 or 2 lemons or oranges to flavor (3 or 4 oranges) or ½ cup of beef broth.
(Soak gelatin in solution of salt and karo syrup). Serve hot for greatest palatability.
3. Tap water enema before retiring.

On the morning of the treatment:

1. Eat a good breakfast.
 2. Report promptly at 8:00 A.M. for treatment.
- This routine is followed in order to counteract the effects of possible dehydration during fever and to compensate for the loss of sodium chloride and carbohydrates.
- In addition to a very thorough physical examination, each patient is subjected to the following procedure before her first fever treatment:
1. Radiograph of the chest.
 2. Electrocardiogram.
 3. Urinalysis.
 4. Blood microscopy.
 - a. Bleeding time.
 - b. Clotting time.
 - c. Platelet count.

Dr. Charles A. Doan, Professor of Medicine and Director of Medical Research at Ohio State University, has stated that Bleeding time and Clotting time are increased with fever, however produced, and that the Platelet count is decreased. All three would tend to increase the possibility of hemorrhage; therefore, it is essential to know whether or not there is any abnormal tendency to bleed prior to fever. Clinically, there has been no hemorrhage in the writer's use of fever therapy.

Blood sugar, non-protein-nitrogen, and renal function tests are made when indicated.

CARE DURING TREATMENT

As can be seen from the accompanying typical chart, pulse, respiration, and temperature (rectal) are determined at least every 15 minutes during treatment. After the temperature has reached the desired level, constant reading by electric thermometer is possible. Nursing care is such an important part of successful fever therapy that the especially trained technicians are in constant attendance, soothing and ministering to their charges.

Each patient spends from six to eight hours in the cabinet. On entering it the environmental temperature has been set by the thermostatic control at 110°F. The relative humidity within the cabinet will be approximately 90 per cent. These important factors are under automatic con-

trol, heating and humidifying devices being in the base of the cabinet. The heat generating unit, the inductotherm, is turned on after the patient is placed within the cabinet and usually operates for about one hour to bring the body temperature to the desired level—about 105°F. There is some slight coasting past this point, in most cases to 106°F., an ideal fever, and the environmental temperature within the cabinet can then be reduced to some point between 104°F. and 100°F. depending upon the peculiarities of the individual patient. It is the low environmental temperature coupled with the high humidity and extremely careful nursing which accounts for the low pulse rates achieved by the electromagnetic induction type of fever therapy.

The desired temperature level of the patient is maintained for from two to five hours. After a gradual cooling, which requires about two more hours, she is removed from the cabinet. Then she is allowed to rest a few hours in bed, after which she can be removed to her cottage with safety.

FOLLOW-UP

A few days after each treatment (given once each week; those who cannot tolerate this fever so often are given the therapy every two or three weeks), the girl is subjected to laboratory tests

RESULTS OF FEVER THERAPY IN COMBINATION WITH ROUTINE CHEMO-THERAPY

Table 1 shows the average number of fever hours and the average number of treatments for a group of 51 girls treated by the staff physician of the Girls' Industrial School of Ohio from January 1, 1938, to May 1, 1939. These figures include those treated by inductotherm and blankets and inductotherm and fever cabinet.

Table 1.

Diagnosis	Number of Patients	Average No. of hours of fever at or above 105.8°F.	Average No. of treatments per patient
Gonorrhea	20	3½	1
Systemic Syphilis ..	24	4.8	2.8
Non-specific Salpingitis	5	4	1
Rheumatism	2	4	1

Table 2 shows the results of fever treatment administered to the group of girls mentioned in Table 1.

Table 2.

Diagnosis	Number of Patients	Remission as shown by repeated serological test	Improved	Not accounted for
Gonorrhea ...	20	20		
Systemic Syphilis ...	24	19		5*
Non-specific Salpingitis ..	5	1	4**	
Rheumatism ..	2	2		

*One of this number escaped from the institution before completing treatment. Four patients left the School for reasons beyond medical control.
**In these cases, the bacterial thermal death point was probably above the human thermal tolerance.

to determine the progress being made. Blood, Kline and Kahn are used when the diagnosis was systemic syphilis; spinal fluid Kline and Kahn, and Colloidal Gold Curve when there are manifestations of congenital syphilitic infection, or when there was a record of many years of treatment for syphilis before the patient came into the institution. In gonorrhea cases the follow-up tests comprise both the cervical smear and the complement fixation tests.

If laboratory findings are negative, even though only one or two fevers have been given, the patient is taken off the fever list. Each venereal case, no matter how long negative, is checked every three months to determine whether or not there has been any recurrence. Should these tests be positive or doubtful, she would be given further treatment, but of the 37 venereally diseased girls who completed fever therapy in 1938, not one has shown a positive or doubtful return. This is far from true of those treated by chemotherapy alone.

There are other results derived from this combination of fever and chemotherapy that do not show in statistics. First, there is considerable saving in money effected by reducing the time of maintenance for these girls in an institution and by cutting materially the employment of expensive drugs. (They cannot be released on parole until they have demonstrated a clean bill of health.)

When the girls have to wait so long to complete their chemical treatments or are out of their classes so often because of illness, they become very dispirited. Fever therapy has raised the morale of this group and in doing so has heightened the morale of the entire institution. Too, there has been a great reduction in anti-social conduct on the part of the luetic group, and sociologists believe that these girls, freed of their affliction, will be less likely to return to the institution for parole violation.

TYPICAL CASE HISTORIES

Name—F. V.
Number of "lethal" fever hours, (above 105.8°F. 2 1/3 hours
Diagnosis—Syphilis
Number of fevers—1
Medication before fever:

Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	6 (0.45)
Bismuth Sodium Tartrate	18 (0.90)
Mapharsen	68
	11

Medication during period of fever therapy:

Neo-arsphenamine	1 (0.90)
Bismuth Sodium Tartrate ..	3

Fever Therapy—Jan. 13, 1939
Result—Remission since Jan. 22, 1939—Negative 8 months
Total elapsed time of treatment—12 months

chemotherapy prior to fever therapy; 1 week
chemotherapy during fever therapy

Name—K. L.

Number of "lethal" fever hours—9

Diagnosis—Syphilis

Number of fevers—5

Medication before fever:	Doses
Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	5 (0.45)
Neo-arsphenamine	7 (0.90)
Bismuth Sodium Tartrate	74
Mapharsen	20

Medication during period
of fever therapy:

Bismuth Sodium Tartrate	18
Neo-arsphenamine	9
Mapharsen	6

Fever Therapy—Dec. 13, 1938 to Feb. 21, 1939.

Result—Remission since Feb. 28, 1939—Negative
6½ months

Total elapsed time of treatment—12 months
chemotherapy prior to fever therapy; 9 weeks
chemotherapy during fever therapy

Name—B. R.

Number of "lethal" fever hours—2

Diagnosis—Syphilis

Number of fevers—1

Medication before fever:	Doses
Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	6 (0.45)
Neo-arsphenamine	14 (0.90)
Bismuth Sodium Tartrate	61
Mapharsen	38

Fever Therapy—Oct. 21, 1938

Result—Remission—Negative 10½ months

Total elapsed time of treatment—17 months of
chemotherapy prior to fever; 1 week chemo-
therapy during fever therapy

Name—D. V.

Number of "lethal" fever hours—13 hours 15
minutes

Number of fevers—6

Diagnosis—Syphilis

Medication before fever:	Doses
Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	9 (0.45)
Mapharsen	24
Bismuth Sodium Tartrate	168

Medication during period
of fever therapy:

Neo-arsphenamine	4 (0.90)
Bismuth Sodium Tartrate	8
Mapharsen	2

Fever Therapy—Jan. 10, 1939 to Feb. 17, 1939

Results—Remission since Feb. 20, 1939—Nega-
tive 7 months

Total elapsed time of treatment—24 months
chemotherapy prior to fever; 6 weeks chemo-
therapy during fever therapy

Name—R. A.

Number of "lethal" fever hours—20 hours 40
minutes

Diagnosis—Syphilis

Number of fevers—6

Medication before fever:	Doses
Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	6 (0.45)
Neo-arsphenamine	8 (0.90)
Bismuth Sodium Tartrate	73
Mapharsen	16 (0.04)
Mapharsen	10 (0.06)

Medication during period
of fever therapy:

Bismuth Sodium Tartrate	14
Mapharsen	6 (0.06)

Fever Therapy—March 10, 1939 to April 20, 1939

Result—Remission since April 23, 1939—Nega-
tive 4 months

Total elapsed time of treatment—12 months
chemotherapy prior to fever; 6 weeks chemo-
therapy during fever therapy.

Name—C. M.

Number of "lethal" fever hours—18½

Diagnosis—Syphilis (Congenital)

Number of fevers—8

Medication before fever:	Doses
Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	5 (0.45)
Neo-arsphenamine	14 (0.90)
Bismuth Sodium Tartrate	59
Mapharsen	12

Medication during period
of fever therapy:

Neo-arsphenamine	12 (0.90)
Bismuth Sodium Tartrate	22

Fever Therapy—Jan. 12, 1939 to March 23, 1939

Results—Remission since March, 1939—Nega-
tive 6 months

Total elapsed time of treatment—9 months
chemotherapy prior to fever; (unknown num-
ber of arm and hip shots prior to admission);
9 weeks chemotherapy during fever therapy

Name—S. M.

Number of "lethal" fever hours—10 hours 40
minutes

Diagnosis—Congenital Syphilis

Number of fevers—7

Medication before fever:	Doses
Potassium iodide	42 (15gts.)
Mercury inunctions	14
Mercury injections	4
Neo-arsphenamine	38 (0.45)
Neo-arsphenamine	22 (0.90)
Bismuth Sodium Tartrate	141
Mapharsen	35

Medication during period
of fever therapy:

Bismuth Sodium Tartrate	20
Mapharsen	10

Fever therapy—Feb. 15, 1939 to May 2, 1939

Results—Remission—Blood Kline and Kahn—
Negative

Total elapsed time of treatment—21 months of
chemotherapy prior to fever therapy, (unknown

amount and kind of chemotherapy before admission to G.I.S.); 10 weeks chemotherapy during fever therapy

SUMMARY

Results obtained in treatment of venereal and other diseases by fever therapy (electromagnetic induction method with air-conditioned cabinet) are reported. Conditions consisted of gonorrhea, systemic syphilis, congenital syphilis, syphilitic optic atrophy, non-specific salpingitis, and rheumatism.

Remissions were brought about in all of 20 cases of gonorrhea; 19 of 24 cases of systemic syphilis, only 19 of which were completed; in one case which combined congenital syphilis, optic atrophy, and juvenile tabes; one of five of non-specific salpingitis, and in two cases of rheumatism.

CONCLUSIONS

Routine chemotherapy, when combined with electrically induced fever (inductotherm method), is much more effective than when used alone.

The sooner in the course of treatment that fever therapy is instituted, the sooner will favorable serological reports be obtained.

Atelectasis

Once the condition is established, the question immediately arises as to how it should be treated. The first and simplest thing to do is to have the patient breathe a mixture of CO₂ and oxygen in an effort to stimulate his breathing. Should this fail to be effective, the face mask is held tightly in place and the lungs inflated under pressure much after the technic used in a patient who is too deep under nitrous oxide anesthesia.

It has frequently been observed that following such a procedure the patient will cough up a large amount of mucopurulent material and improvement follows. One doctor described such improvement as being "immediate and dramatic." Following this, the administration of CO₂ and oxygen should be kept up at frequent intervals until the situation is well under control.

It will be found that if the above technic (both for prevention and treatment) are faithfully carried out, bronchoscopy will seldom be necessary. It goes without saying that if a bronchus is actually plugged and this plug cannot be expelled by coughing, after inflation, bronchoscopy is indicated.—Evan G. Galbraith, M.D., Toledo, Ohio; Jour., Ind. State Med. Assn., Vol. 33, No. 2, February, 1940.

The unsolved problems related to the tubercle bacillus remain infinite and tuberculosis remains the greatest killer of man during the most useful period of his life.—Editorial, Jour. of Amer. Med. Assn., Nov., 1939.

Roentgen Therapy of Infections

Possibly the main action of irradiation on infections is upon the blood supply. An increased circulation to the treated area allows an influx of a greater amount of antibodies and polymorphonuclear leukocytes, and by the same token carries away more of the cellular debris and toxins which accumulate locally as the result of bacterial growth. Probably a minute quantity of bacteria is directly influenced by irradiation, but it is probable that such an effect is not enough to be significant. It is also stated that irradiation increases the alkalinity of the tissue irradiated. Apparently an alkaline medium is ideal for polymorphonuclear leukocytes, whereas the lymphocytes are more readily attracted toward an acid medium, such as occurs in chronic infection like chronic arthritis.

Irradiation is believed to affect complex protein molecules and may, by changing the structure of the toxin molecules, produce detoxification of the poison. Such a premise is theoretical, but in that irradiation does change the molecular structure of proteins elsewhere, it may also affect the toxins of bacterial origin. Irradiation also changes the albumin-globulin ratio in the tissues. Ordinarily, the albumin fraction is higher than the globulin but irradiation raises the globulin in this ratio. The latest concept about antibodies is that they are specific globulin fractions and anything that would raise the globulin might also raise the antibodies. It is fairly well established that irradiation will raise the antibodies in the blood and increase the bactericidal power of the blood. This is only true, however, when small doses such as given in infections are employed. The larger doses produce a reverse reaction.

The function of the polymorphonuclear cell is to destroy bacteria which it does by means of an enzyme. The bacteria frequently kill the polymorphonuclear cells, but even in death the polymorphonuclear cell gives off a proteolytic enzyme which does not affect the bacteria but does produce liquefaction necrosis. Desjardin believes leukocytic degeneration to be of paramount importance in local immunity because it increases local phagocytosis.

Increased local immunity is usually attended by increased general body immunity. Radiation probably favors this response, as numerous investigators have demonstrated increased bactericidal responses following small doses of radiation which last three to five days. Long exposures and high intensities are known to depress rather than augment these favorable responses. The reticuloendothelial system and the albumin-globulin ratio apparently are also favorably influenced by small doses of low voltage rays.—Eugene P. Pendergrass, M.D., and Philip J. Hodes, M.D., Philadelphia, Pa.; Texas St. Jour. of Med., Vol. XXXV, No. 10, February, 1940.

Rupture of a Cavernous Hemangioma as a Cause of Death in a Newborn Infant

Report of a Case

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ACCORDING to Geshikter and Keasby¹ vascular tumors are among the most common neoplasia found in the human body. Although the majority of these benign angiomas are found on the body surfaces their true prevalence is probably not realized due to the considerable percentage which are located centrally where they remain symptomless throughout life. In a series of 570 cases of vascular angiomas based on the surgical and autopsy records at the Johns Hopkins Hospital Geshikter and Keasby found the distribution to be as follows:

Peripheral Angiomas	370 cases
Central Angiomas	135 cases
Liver	109
Heart Valves	16
Other internal viscera	10
Bone	10
Intermuscular	10
Central Nervous System	43

Numerous authors describe the surgical removal of large centrally located vascular angioma in adults. Nettrour² describes a case in which an angioma of the liver weighing 500 gm. and measuring 10x15 cm. was removed after exploratory laparotomy. Sala³ describes a liver at autopsy which weighed 6,570 gms., had the appearance of a polycystic kidney, and which on microscopic section showed nearly complete transformation of the liver substance into a mosaic arrangement of large blood-filled spaces and areas of hemorrhage separated from one another by thin fibrous septa, only scattered small islands of liver tissue remaining. MacCallum⁴ describes a cavernous hemangioma of the liver measuring 24 cm. in diameter.

Many authorities, notably MacCallum⁴ and Kauffman⁵ state that central angiomas may rupture, either spontaneously or as the result of external violence. However, we are aware of no previous substantiated case in which the rupture of an angioma of the liver was given as the cause of death in a newborn infant and hence the following case is offered.

REPORT OF CASE

A 17-year-old primpara was admitted to the hospital in active labor. The patient stated that she had been subjected to epileptic "fits" since the onset of her menses at the age of 12. These

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seizures had occurred at approximately weekly intervals until four months previous to her admission, at which time she began using a proprietary mail order product which caused a complete cessation of any symptoms of epilepsy. The patient was allowed to continue this self-medication and had no seizures while in the hospital. After a 48 hour labor, an episiotomy was performed, low forceps applied, and an 8 pound 12 ounce infant extracted with considerable difficulty. Because of the somewhat difficult labor and delivery, the possibility of the occurrence of an intracranial hemorrhage was borne in mind and hemostatics were administered parenterally. On the first postpartum day, the infant regurgitated most of its routine dextrose water feedings and lost several ounces in body weight. On the second postpartum day the infant nursed normally and appeared perfectly normal in every respect except for a small abrasion on the side of the face, resulting from the forceps application, which bled slightly. The administration of hemostatics was continued. On the third postpartum day the infant behaved and appeared perfectly normal up until about 7:00 p.m., at which time it began to appear pale and listless. This condition rapidly became exaggerated and within 20 minutes the extremities were distinctly cold to touch and lay flaccid, the heart and breath sounds were normal, and no signs of fluid in the abdomen were elicited. Because of this alarming condition, 30 cc. of blood was withdrawn from the mother while the infant was being prepared for transfusion via the anterior fontanel. Just as the fontanel puncture was to be performed the infant expired and all efforts at resuscitation were futile.

After death, although some dullness on per-

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cussion was noted over both lateral sides of the abdomen, a tentative diagnosis of intracranial hemorrhage was retained. Accordingly, at post-mortem examination, the cranial cavity was first examined, and found to be perfectly normal.

However, upon opening the abdomen with a longitudinal incision, the entire cavity was found to be filled with blood, which exuded through the opening. The abdomen was emptied of blood with slight pressure and the incision enlarged. Inspection of the cavity now revealed clotted blood between the bowel loops which was removed easily. However, in the right side was a blood clot which seemed to be adherent to some structure and on close inspection it was seen that it was surrounded with a membrane resembling serosa. Inspection of the remainder of the abdominal contents revealed no gross malformation or pathological process. All organs were next eviscerated en masse in order to approach the origin and connection of the clot mentioned.

The clot and its membrane was found to originate from the liver. An area was found in the right lobe of the liver measuring 3x3 cm., black in appearance, separating the serosa from the liver by pressure. The capsule of the blood clot was attached to the posterior border of this area. A similar area 3x5 cm. was found at the insertion of the falciform ligament. The blood clot was then removed, showing a tumor-like swelling of the right lobe covered by serosa which was ruptured at the apex of the tumor in an area measuring 1x1½ cm. Several other smaller but similar areas were found in the liver substance. The liver was imbedded in formalin and after fixation a cut section was made through the tumor. The tumor measured 3x1½ cm. and was black in color.

Some difficulty was encountered in securing a good section of the tumor for histological study because the severe hemorrhage which undoubtedly occurred destroyed much of the histological structure of the angiomatous tissue. However, some slides show the typical structures of a cavernous angioma with sinuses lined by endothelium.

A gross and microscopical diagnosis was made of cavernous hemangioma of the liver, ruptured, and hemorrhage into the abdominal cavity.

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Pulmonary tuberculosis in syphilitic patients does not respond as favorably to sanatorium treatment as does the disease in non-syphilitic patients but the course of syphilis in the tuberculosis patient does not appear to differ from the course of the disease in the non-tuberculous.—F. C. Warring, *Amer. Rev. of Tuber.*, August, 1939.

Allergy in Tuberculosis

Allergy does not develop simultaneously with infection. There may be an interval of from two to three weeks between infection and a positive tuberculin reaction. In any large survey there may be a few cases recently infected and not tuberculin-positive. In some of these, X-ray lesions may develop.

The second group (previously positive, now negative) is more important; probably the greatest single cause for our present confusion. We have tended to overlook the fact that with the arrest and healing of tuberculous lesions allergy wanes and finally may disappear.

In a period, however, when the mortality rate is dropping steadily, and the morbidity rate is following in some proportionate relationship, and when in addition an improved control of tuberculosis is bringing about a steadily increasing isolation of patients with open lesions, it is only to be expected that reinfection, the rule in the past, will become progressively less frequent. The infections that formerly constantly restored a waning allergy will be far less frequent in the future and we may look forward to the time when loss of allergy will be as common as its maintenance.

A study of 2,490 positive reactors, all examined at the Henry Phipps Institute, showed that 276, or approximately 11 per cent became negative, either transiently or for the balance of the period of observation. It was disclosed also that the stronger the original reaction the less frequently it reverted to negative, and vice versa. Further, the correlation with exposure was equally striking. In 58 per cent of the families in which no tuberculosis was present, the tuberculin reaction became negative in some member of the family, while in families where there was continuously a member with sputum-positive tuberculosis, allergy disappeared in some member of the household in only 8 per cent of the families.

The fact that allergy tends to disappear where there is no exposure, and has more and more tendency to remain as exposure is presumably more frequent, suggests strongly that reinfection is responsible for the maintenance of the positive reaction. The epidemiological significance of this fact is obvious.

In the 276 cases in which the reaction became negative, no abnormality was detected in the film in 94 per cent and there were no cases of active reinfection type tuberculosis in the entire group. In 10 cases with what were read as calcified lesions, the reaction became negative.

Two cases are recorded in which tuberculin-negative children with calcified lesions became tuberculin-positive coincidentally with the development of fresh, active tuberculosis.—Esmond R. Long, M.D., *Amer. Rev. of Tuber.*, Vol. XL, No. 6, Dec., 1939.

Sulfapyridine in the Treatment of Pneumonia

Observations in One Hundred Cases

JOSEPH ROSENFELD, M.D., and ALEX M. ROSENBLUM, M.D.

IN England, on May 28, 1938, Whitty¹ published his observations on the use of sulfapyridine in experimental pneumococcic infections in mice. The results obtained appeared so promising that the treatment was applied to pneumococcic infections in man by Evans and Gaisford² who used sulfapyridine in 100 cases of pneumococcus pneumonias with a mortality rate of 8 per cent. Carefully controlled application of this drug was instituted in the United States in the summer of 1938 by Flippen and Pepper³ who published the first report in this country of pneumococcus pneumonia treated with sulfapyridine (Dagenan). Since then numerous reports on the clinical application of sulfapyridine in pneumococcus pneumonia have appeared in the literature all over the world, with results which have consistently demonstrated a significant reduction in the mortality rates.

Beginning in November, 1938, through the courtesy of Merck and Company, we were generously supplied with sulfapyridine (Dagenan) for use in the treatment of pneumococcus pneumonia. These observations began in November, 1938, and ended early in May, 1939. Of these first hundred cases treated with sulfapyridine 45 were St. Elizabeth Hospital admissions and 55 were admitted to the two units of the Youngstown Hospital. With rare exceptions only primary pneumococcus pneumonias were used in this study and sulfapyridine was the sole form of treatment employed except for routine nursing and medical supervision.

CLINICAL MATERIAL

In the early months of this investigation not all cases of pneumonia were made available for study. Through the efforts of Dr. C. R. Clark, the Mahoning County Chapter of the American Red Cross had been supplying antipneumococcus serum for all pneumococcus pneumonias in patients who were indigent and others who, in the opinion of the attending physician, were unable to pay for such medication. Since the treatment of pneumococcus pneumonia with type specific serum has proved to be of such definite value all cases which were admitted within the first three days of the disease and of a type for which antipneumococcus serum was available were treated with serum. All others, namely those that had been ill four days or more, those with types for which no type specific serum was available and those cases in which

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for one reason or another sputum typing was impossible, were treated with sulfapyridine.

It would naturally follow that our material for the study of sulfapyridine therapy was not ideal and obviously a comparative study of sulfapyridine treated cases and those treated with type specific antipneumococcus serum in these two hospitals during the same period of time would not be fair. The cases which are reported here were in the majority of types for which no type specific serum was available, cases in which the disease was well advanced, and cases in which serum therapy was withheld because of either positive skin reactions, definite allergic history, or asthma. Late in this study when the favorable results obtained with sulfapyridine became apparent, it was used regardless of the day of the disease and the type of invading organism.

CLINICAL DIAGNOSIS

In so far as was possible the diagnosis of pneumonia was established through the history,

AGE, RACE, AND SEX DISTRIBUTION

TABLE I

Age Years	No. of Cases	No. of Deaths	WHITE		NEGRO	
			Male	Female	Male	Female
0-3	13	1	9	4		
3-10	7		3	4		
11-20	3		1	2		
21-30	15	1	10	5		
31-40	16	1	5	9	2	
41-50	15	1	11	3	1	
51-60	16	2	9	4	2	1
61-70	8	2	5	2		1
71-80	5		2	3		
81-100	2	1	2			
Total	100	9	57	36	5	2

signs, and symptoms. In 92 per cent x-ray studies substantiated the clinical diagnosis. In the remaining 8 per cent no x-ray studies were

made, either because the diagnosis was so obvious or because of its impracticability. All of the cases had fever; 68 per cent, chest pain; 49 per cent, dyspnea; 43 per cent, chills; 37 per cent, hemoptysis; and in 2 per cent, asthma was present.

Of the 13 cases up to three years of age there was only one death, or 7.7 per cent; 62 per cent of the cases occurred between the ages of 21 and 60. It is interesting to note that of the seven cases between the ages of 71 and 100 there was only one death. This was a 95 year old man who had a widespread Type VIII pneumonia involving almost the entire left lung, complicated by a toxic nephritis. He died on his fifth hospital day.

PROCEDURE

Immediately after establishing the clinical diagnosis of pneumonia blood was taken for culture and the sputum typed. Routine blood count and urinalysis was performed on admission and repeated as often as indicated. The

DISTRIBUTION OF TYPES AND MORTALITY

TABLE II

Type	No. of Cases	No. of Deaths
I	11	1
III	17	4
IV	1	
V	9	
VI	4	1
VII	6	
VIII	3	1
IX	3	
X	1	
XI	1	
XIII	1	1
XVI	2	
XVII	1*	
XVIII	5*	
XIX	1	
XX	1	
XXI	1	
XXII	2	
XXIII	1	
XXIV	2	
XXV	1	
XXIX	1	
Untypable	25	1
Total	100	9

*One case typed T17 and T24. Reported as T17.

*One case typed T18 and T5. Reported as T18.

*One case typed T18, very occasional T6. Reported as T18.

dosage of sulfapyridine in the average adult regardless of weight was routine, namely 2 grams as the initial dose, then 1 gram every four hours until 16 grams had been given, then 1 gram every six hours until a total of 23 to 25 grams had been given. In some instances additional doses of the drug were given. Infants and children received proportionately smaller doses, according to body weight; approximately 1 grain per pound every 24 hours. Neither rectal

administration of sulfapyridine nor the parenteral use of the sodium salt of sulfapyridine were resorted to in this series.

RESULTS

The response to sulfapyridine was generally evidenced in within 12 to 36 hours by a rapid fall of the temperature. Accompanying this drop in temperature was a lowering of the pulse rate and a subjective improvement which although not as dramatic as has been observed in the serum treated cases nevertheless was noticeable and gratifying. There was a decrease in the toxemia, respiratory rate, anxiety and restlessness.

In 75 per cent of the cases the sputum revealed one of the known types of pneumococcus. In the remaining 25 per cent sputum was either unavailable or the attempt to find a pneumococcus of one of the known types by the Neufeld method or mouse injection failed. There were 13 cases in children up to three years of age and in the majority of these sputum could not be obtained. The use of throat and laryngeal swabs was not resorted to nor were lung punctures done to obtain material for typing. There was a total of nine deaths, a mortality of 9 per cent for the group studied. This conforms with the mortality rates reported in the recent literature by numerous investigators.

Included in the nine fatal cases were:

A 62 year old white male, Type III, with negative blood culture who was admitted to the hospital almost moribund and who died within 12 hours of admission.

A 57 year old colored male whose sputum was untypable and blood culture negative. He died within eight hours of admission. Autopsy disclosed an acute toxic nephritis and acute toxic hepatitis, lobar pneumonia right, with extensive edema and congestion of the left lung.

A two year old white male child who had been sick for six days before admission with a Type XXIII pneumonia. Blood culture was negative. This child died within 24 hours of admission.

A 49 year old white male who had been operated on for acute appendicitis. On the second postoperative day he developed pneumonia. Sputum showed Type VI pneumococcus and the blood culture was positive for Type VI. Sulfapyridine was administered on the first day of his pneumonia when his temperature was 103.2. After 27 hours his temperature reached normal and remained so until the fifth day when during a coughing spell his incision split open. A secondary closure was made but he developed a generalized peritonitis and died.

One could question the value of any form of therapy in these four cases. If these were omitted from this group the mortality in the remaining cases would be reduced to 5.2 per cent.

BACTEREMIAS

Blood cultures were taken in 88 per cent as soon after admission as was practical and if found sterile after four days the culture was

considered negative and not repeated. On the remaining 12 per cent blood cultures were not obtained. It is significant to note that in this

BACTEREMIAS

TABLE III

Type	No. of Cases	No. of Deaths
I	1	
V	2	
VI	4	1
IX	1	
XXV	1	
Total	9	1

series there were four Type VI pneumonias all of which had positive blood cultures. This high incidence of Type VI bacteremias cannot be explained. With a total of nine bacteremic cases there was one fatality, a mortality of 11 per cent. This death occurred in one of the few post-operatives included in the series and was undoubtedly due to the peritonitis which followed secondary closure of his abdominal wound.

TOXIC MANIFESTATIONS

The gastrointestinal symptoms were the outstanding toxic manifestations. Nausea accompanied by vomiting predominated in a considerable number. These appeared after about the second or third dose of the drug had been given. That this phenomena is not of local but rather of central origin was demonstrated by Marshall and Long.⁴ All measures used to control the

TOXIC MANIFESTATIONS

TABLE IV

Reaction	No. of Cases
Nausea	42
Vomiting	34
Cyanosis	12
Central Nervous System	6
Hematuria	2
Dermatitis	2
Drug Fever	0
Anemia	0
Leukopenia	0

nausea proved unsatisfactory. Later in the series the sulfapyridine tablets were ground up and suspended in either milk, water or fruit juice and this lessened to some slight degree the incidence of nausea and vomiting. In only a few cases when the vomiting reached alarming proportions was it deemed necessary to suspend treatment, but after a rest period of from 12 to 24 hours, the administration of the drug was resumed with seemingly improved tolerance. Ample fluids were given intravenously when

indicated. Where nausea and vomiting were not excessive therapy was uninterrupted.

Slight cyanosis was present in a considerable number but was marked in only 12 cases. However in no instance was treatment suspended because of this sign.

Sulfapyridine is undoubtedly a depressant to the central nervous system. Symptoms such as malaise, lightheadedness, headache, dizziness, and a sense of depression were not uncommon. In six cases however lethargy, somnolence, intermittent periods of irrationalism and delirium were observed. In this group the drug was discontinued and the parenteral administration of fluids begun in an effort to reduce the toxicity and lower the blood sulfapyridine level.

Hematuria was present in two cases and as

TABLE V

Free Sulfapyridine in Mgms. per 100 CC.	No. of Determinations
Faint Trace	2
Trace	5
1.	5
2.	6
2.5	4
3.	3
3.5	2
4.	12
5.	11
6.	1
7.	2
11.	1
Total	54

soon as discovered the drug was withdrawn with subsequent disappearance of the hematuria in both cases.

A maculopapular rash appeared in two cases but this cleared up readily on cessation of treatment. Drug fever, hemolytic anemia and leukopenia were not manifest in this series.

BLOOD SULFAPYRIDINE LEVELS

According to Long and Wood⁵ "Sulfapyridine has usually been found to be less readily absorbed and more slowly excreted in human beings than is sulfanilamide." All the determinations for free sulfapyridine in the blood were done by the Marshall method. On the dosage here employed it was found difficult to obtain a so-called satisfactory concentration of sulfapyridine in the blood, namely 6 to 10 mgm. percent. Adults of about the same size and weight and on identical doses of sulfapyridine demonstrated a wide variation in their blood sulfapyridine levels. Our findings conformed with the observations of Flippen⁶ and his associates, in that patients with relatively low blood levels experienced the same early critical drop in temperature as those in whom blood sulfapyridine levels were much higher. In a total of 55 determinations as listed in Table V, the blood sulfapyridine concentration

varied from a faint trace to 11 mgm. per 100 cc. and of these 50 were 5 mgm. per 100 cc. or less. There appeared to be no uniformity in the ability of the individual to absorb sulfapyridine.

These determinations were performed on 23 patients. Blood for the first determination was always withdrawn the morning following the day on which sulfapyridine administration was begun. In 15 cases, repeated determination for free sulfapyridine in the blood were performed at 24 hour intervals and the subsequent level of the blood sulfapyridine in these cases was usually higher than the initial one and remained fairly uniform as long as the same dosage was maintained.

This conforms with observations made by Plummer and Ensworth.⁷ No attempt was made to raise the blood concentration by increasing administration of the drug. Furthermore the toxic symptoms did not appear to be influenced by the degree of concentration of sulfapyridine in the blood.

SUMMARY

1. One hundred patients with pneumonia treated with sulfapyridine, of which 75 showed one of the known types of pneumococcus. The remaining 25 were not typed or were untypable.

2. A uniform plan of administration of sulfapyridine was employed. Adults received 2 grams orally as the initial dose, then 1 gram every four hours until 16 grams had been given, then 1 gram every six hours until a total of 23 to 25 grams had been given.

3. The administration of sulfapyridine was followed in the large majority by a rapid fall in temperature and definite clinical and subjective improvement.

4. There were nine deaths recorded, or a mortality rate of 9 per cent. Of these, three died within 24 hours of admission and the fourth death followed a postoperative accident with resulting peritonitis.

5. Blood cultures were taken in 88 cases, nine of which were reported positive. Of these nine, eight recovered, giving a mortality rate of 11 per cent for bacteremic cases. The one death in this group was probably due to a postoperative accident and peritonitis.

6. The most frequent early toxic effect with sulfapyridine was nausea and vomiting. This was present in about 50 per cent of the cases and with few exceptions subsided either spontaneously or after temporary withdrawal of the medication.

7. The blood sulfapyridine levels varied markedly. The highest blood level reached in 50 of 54 determinations was 5 mgm. per 100 cc.

CONCLUSIONS

Although this series is not large, the mortality rate of 9 per cent is favorable. The results conform with the majority of the reports of investigators on the use of sulfapyridine in the treatment of pneumococcus pneumonias since Evans and Gaisford² first published their findings. The ease of administration, the low cost, and the rapidity with which treatment can be

instituted, together with the marked lowering of the mortality, support the belief that sulfapyridine is of value in the treatment of pneumococcus pneumonia.

However a thorough knowledge of its toxic manifestations is essential. Although no serious toxic effects were manifest in this group one must keep in mind drug fever, hemolytic anemia, granulopenia, and crystallization of the drug with formation of stones in the urinary tract.

It is yet too early to try to compare the relative effectiveness of serum and sulfapyridine. Numerous comparisons have been ventured but because of the many variables encountered accurate conclusions could not be formed. Among these variables are age, duration of illness before treatment, extent, character and degree of involvement, type and strain of the invading organism and the presence or absence of bacteremia. Others of less importance are season, locality, and individual characteristics such as natural defenses and physical abnormalities.

Not only the physician but the layman too has been educated to the advantages of the recent advances made in the treatment of pneumonia with serotherapy and sulfapyridine. Institutional care although not essential is decidedly advantageous and the patients now more readily consent to hospitalization. This has resulted in earlier diagnosis and treatment. These are probably contributory factors to some degree in the reduced mortality during recent years. At least for the present sulfapyridine is especially valuable in types for which specific serum for one reason or another is not available or its administration impractical.

Keith Albee Bldg.

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Considerable attention is paid to the infection of children by tuberculous teachers but the question of the infection of children by domestic servants has received little attention. The prevention of first infection tuberculosis involves the examination of domestics in homes where there are children.—Teschendorff, V., *Deut. Tub. Blatt*, 1938 and *Bul. Hyg.*, June, 1939.

Pneumonia Cures

M. A. BLANKENHORN, M.D., CINCINNATI, OHIO

THIS *Journal* has kept its readers well informed of the progress in methods of treating lobar pneumonia. The special article by Shibley of Cleveland in February, 1938, on serum therapy, the special article by Ruegsegger of Cincinnati in February of this year, and in the same number the report from Cleveland City Hospital on the comparative value of serum and sulfapyridine, and now, in last month's issue the comparative use of sulfapyridine and serum from the Cincinnati General Hospital, are all very informative but they do not answer the main question, as to which is the best remedy. In spite of voluminous literature in national journals as well, the question is unanswered, and a discussion of how to decide the matter is quite in order.

Anyone experienced with pneumonia and the methods of therapeutic trials knows that the not very distant past is strewn with discarded pneumonia cures, and that, until a few years ago, in every medical meeting on pneumonia, some authority disclosed his own peculiar treatment that for many years "had not lost a patient." Osler's system in 1907 cited the 'collected cases treated with creosote (1130 cases with a fatality rate of 4.9 per cent). Osler cites also one Clement of Frankfort who treated "all his pneumonias for 40 years with prolonged inhalations of chloroform without a death." These exaggerated instances show the difficulties of deciding the value of cures in a disease which varies greatly in severity. In the best of circumstances the matter of controls for the testing of pneumonia cures is troublesome, for no two patients are alike and one cannot both treat, and not treat, the same patient. The editor of *The Journal of the American Medical Association*, on February 24, 1940, with up-to-date regard for all latest reports, states that "the relative value of the two methods and the indications for their employment as well as for the combined use of the two, await further clinical studies."

CONFLICT IN CLINICAL STUDIES

Now, when clinical studies come to be in conflict, as are the recent reports from Cleveland and Cincinnati, the casual reader may be in despair and decide to do nothing about the matter until time brings the answer. It is the opinion of this writer that the casual reader—who, after all, is the man who will treat most of the pneumonias—must be conversant with all the factors on which this issue rests so that he may make the necessary decisions at the bedside of each new

pneumonia patient. In other words, it is my opinion that the future will not bring us a universal remedy, better than all the rest for every case of pneumonia, but that there will be several—perhaps a number—of best remedies for the particular variety of pneumonia at hand. Instead of a specific for all pneumonias, there will be a specific for each of several varieties. The best-trained and most up-to-date physician will therefore classify his pneumonias and choose a remedy accordingly.

RELATIVE VALUE OF SERUM AND SULFAPYRIDINE

Certainly it is now impossible to compare the relative value of serum and sulfapyridine in a series of cases without accurate classification. For illustration, compare the Cleveland City Hospital studies, which found 18.2 per cent fatality for serum treatment and a "no fatality" rate for sulfapyridine, with the Cincinnati series, reporting a 4.4 per cent fatality for serum and 12.0 per cent for sulfapyridine. Why such a difference? Both series were selected by the alternate case method and with about equal results as to total deaths (6 out of 66 in Cleveland and 8 out of 94 in Cincinnati). It should be noted, however, that in the Cleveland series all the bacteremic cases fell to the lot of serum, and nearly all of the Type II (10 out of 12) also fell to serum. It is always true, anywhere, that fatality rates are very high in bacteremic lobar pneumonia, and that Type II is one of the most fatal types as compared with other non-bacteremic and bacteremic pneumonias. The combined experience of the Harlem Hospital and the Boston City Hospital found it to be 46.3 per cent fatality.

It is then quite clear what has caused some of the difference in serum results, in the comparison at hand. If most of the worst cases were treated with serum, and the less fatal types with a drug, the drug is bound to show better results. It should also be noted that in the Cleveland series there were 7 out of 66 (more than 10 per cent) reported as "untypeable pneumococcus," and only 37 per cent of serum-treated cases responded with crisis. One should suspect, therefore, that inappropriate serum might have been given as a consequence of inaccurate typing. It is good practice to recheck the typing when serum treatment is not successful, and experience has shown that where typing has been done on all cases for a few years, direct typing of sputum needs repeated checking, but with careful technique. Very few pneumococci are "untypeable".

An Editorial summary, prepared at request of The Editor.

In the pneumonia laboratory of the Cincinnati General Hospital, six pneumococci in about 1800 different patients could not be typed; all the rest were classified. Accurate typing is difficult at best, and comes only by intimate contact between clinician and laboratory physician to double-check all doubtful results. It takes time to build up such clinical practice. Altogether, the difficulties of typing are a serious obstacle to the general use of serum treatment.

BOTH METHODS INDICATED

The most that was claimed for the Cleveland City Hospital series was that the doctors did not have good results with serum treatment, and did have good results with the drug. The authors very wisely made no comparisons, odious or otherwise, but uncritical reading might lead to a decision that the drug should always be used and serum discarded.

The Cincinnati series, which finds serum better than the drug (4.4 per cent fatality as to 12.0 per cent), is far from conclusive, and for a number of obvious reasons it was not offered as advice to anyone. In the first place, the series was too small, and covered only a part of one year. Really to decide the matter of relative value, the two treatments should be continued by alternate case method for several years. The series was stopped because the physicians responsible for the care of these patients were unwilling to withhold a valuable remedy that was clearly indicated in order to continue a series without that remedy. The plan in effect now in Cincinnati is to use each or both "cures" selectively with the purpose of reducing the mortality as low as possible.

In contemplating the present question, i.e., which is better, serum or sulfapyridine, the writer has not lost sight of the tremendous advances everywhere in pneumonia "cures". In writing a special article for *The Journal*, I may take editorial privileges by making claims for the profession as a whole which would not be in good taste if I were writing about work done only by myself and my associates. I am not willing to join the claims I see in the daily papers, viz., that with this new drug no patient should die of pneumonia—I do claim that only a very few should die.

The control in such a study will then consist of the series of patients who have been admitted to the hospital too late to receive specific therapy during the past five years. The value of that form of scientific control is debatable, but the close parallel between this figure (32 per cent) and the mortality of 36.4 per cent reported by Schiff for the years 1924-1929, makes it appear that the mortality without therapy is fairly constant.

To accomplish the most with the present cures, a program flexible enough to employ several

therapeutic agents of proved merit is advised. Etiological diagnosis still remains of paramount importance, especially so if therapy is individualized. In pneumonias caused by the haemolytic streptococcus, sulfanilamide is the sulfonamide of choice at the present time because of its lesser toxicity. The drug is usually given by mouth, although it may be administered parenterally, in doses of 1-4 grams; dosage is regulated by blood chemical determinations, the optimal level probably being about 10-12 mgms. per cent.

The pneumonias caused by pneumococci should be treated with sulfapyridine and/or serum. Unless previous sulfanilamide therapy has been associated with toxic symptoms, sulfapyridine may be given on admission in doses of two grams, followed by one gram at four-hourly intervals. If clinical improvement is not noted within 24 hours, institution of serum therapy is indicated. Poor absorption and excessive conjugation of the drug may dictate larger doses, but this dosage will yield a satisfactory blood level (4-7 mgms.) in the majority of adults. Chemotherapy should be continued until the patient's temperature has been within normal limits for 48 hours.

Silicosis

The clinical picture of silicosis can be quickly summarized. In contrast to most pathological entities, silicosis presents no pathognomonic syndrome, no characteristic symptom complex. It is true that we read of the fixed chest, the dyspnoea, the chest pain, the sputum—scanty, glassy and blood tinged, or copious and mucopurulent. Among the physical signs we are told of limited chest expansion, cyanosis, hyperresonance, prolonged and suppressed breath sounds, clubbed fingers, a various assortment of rales. But these same symptoms and signs are, individually and in groups, found to belong to other conditions and in individuals in whom no suspicion of silicosis can exist. It is the writer's firm belief that silicosis remains symptom-free until some complication develops. The possible exception to this generality is that a simple uncomplicated silicotic may become so far advanced that the accompanying emphysema may handicap him. Even that might come under the heading of complications without stretching the point too far. In those cases which do become symptomatic the onset of symptoms is so insidious that it has been stated that the first symptom is a decrease in the pay check of the piece-worker—due to his slowing down in working efficiency.—D. M. Brumfiel, M.D., Saranac Lake, N. Y.; *North Carolina Med. Jour.*, Vol. 1, No. 1, January 1, 1940.

Teachers are often at school when, for the health of all concerned, they should be at home.—James Frederick Rogers, M.D., Hygeia, December, 1939.

Case Record Presenting Clinical Problems

A Case of Painful Hips Following Some Days After Piercing Wound of Foot. Sudden Death. Necropsy.

HARRY L. REINHART, M.D.

A FIVE-YEAR-OLD white male child was admitted to the hospital because of severe pain in both hips. The history was obtained from his parents as the patient was a deaf mute.

Present Illness: Nine days prior to admission the patient cut his right foot on a piece of glass while running barefoot on the farm where he lives. The wound bled freely and was not considered serious by his parents. Two days after this injury the entire right foot was sore and swollen, and the parents noticed red streaks extending up the leg to the right groin. During the next two days, home remedies were applied but gave no relief. A physician was called who probed the original puncture wound in the right foot but obtained nothing. Salve was applied and the patient was ordered to spend most of the day in bed. Under this treatment the pain, swelling, tenderness and streaks disappeared. Simultaneously with the disappearance of these symptoms he developed a severe pain about his right hip and in his right groin which was especially intense when he attempted to walk. On the day prior to admission the pain was in the region of the left hip and left groin and was so intense that he was unable to bear his weight. He carried a fever which was as high as 104 degrees the day before admission. His appetite had been poor throughout his illness and the parents thought that on one or two occasions he had been somewhat irrational.

Past History: The patient had had no serious illnesses but on several occasions the parents had been told that he was somewhat undernourished due to the type of his diet.

Family History: There was one sister who was also a deaf mute and another sister living and well.

Physical Examination: The patient was a thin, poorly nourished five-year-old white male. The eyes reacted to light and accommodation. There was no nystagmus. The heart and lungs were negative to auscultation and percussion. There was no rigidity of the neck. The abdomen was entirely negative. He apparently suffered no pain when lying flat on his back with both thighs flexed. There was extreme tenderness on the slightest touch of the skin over the left hip and the left gluteal region. He would not permit manipulation of either lower extremity. There were no areas in this region which appeared red or swollen and there was no definite area which felt hot. There was an old puncture wound present on the plantar surface of the right foot which appeared to be nearly healed. This area was not tender. There was a moderate cervical lymphadenopathy. The inguinal lymph nodes were palpable on both sides but not tender.

Laboratory findings: The blood count—erythrocytes 5.63 millions per cu. mm.; leucocytes 22,700 per cu. mm.; Hgb. 13 grams. Differential count—87 per cent neutrophils; 11 per cent lymphocytes; 2 per cent monocytes. Examination of spinal fluid revealed 22-23 white cells per cu. mm., which were all lymphocytes. The icterus index was 15.8. A blood culture was positive for hemolytic staphylococcus aureus. The Wassermann was negative.

Course in Hospital: Following admission the patient was placed at absolute bed rest. Spinal puncture was done at once and revealed the findings as recorded above. He was observed carefully and two days after admission it was thought that an abscess was present in the left buttock and exploration was done under general anesthesia, but no pus was found. He was then given a course of treatment with sulfanilamide which was shortly changed to sulfapyridine. Some clinical improvement followed. The temperature began to fall gradually toward a normal level. The pain which originally was present disappeared and he was able to move about in bed without difficulty. Six days after the exploratory operation he was found standing beside his bed and bleeding profusely from the operative wound. This bleeding was immediately controlled with pressure bandage. On the evening of the ninth post-operative day the patient suffered a sudden attack in which he became pale and pulseless. Coramine and caffeine were given and improvement was marked. One half hour later he again became very pale, with rapid and thready pulse and he expired very quickly.

Discussion—Dr. V. A. Dodd:

In reviewing the recorded history and physical findings in this case, one notes the paucity of detailed information which makes difficult any attempt at an analytical approach to the diagnosis. We are proceeding towards a speculative diagnosis. The events of the history fall quite naturally into three phases. The first concerns the inception of the disease; the second its localization; and the third the terminal accident.

The illness would obviously seem to be explained on a basis of infection. There is the history of an atria in the incised wound of the foot. There is a clear history of an ascending lymphangitis. There is the story of pain and swelling of the foot with inflamed lymph channels from ankle to groin and although the local symptoms promptly subsided as the result of somewhat questionable treatment, the subsequent train of events is closely tied in with this infection. Almost any of the common pyogenic organisms might be expected to gain a favorable foothold under the circumstances enumerated in this history of a neglected open wound of a bare foot

This is the forty-eighth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

exposed to the contaminants in farmyard soil. The continuous illness with severe leucocytosis, pain, disability, and a positive blood culture would make this relationship quite clear. The story of the infection beginning as it did so shortly after inception of the wound and the failure of the contaminating bacteria to form an abscess in the foot about the point of injury or along the course of the lymph channels or in the regional glands would tend to earmark the organism as one of the streptococcal group. Virulent streptococcal infections are most frequently observed to develop within 24 to 48 hours following their introduction; whereas, the staphylococci require three or more days to reach the same stage of development. However, the cultures from the blood stream show that the organism grown was a hemolytic staphylococcus aureus, an organism which clinically behaves much as streptococcus.

Following the subsidence of the ascending lymphangitic infection, attention was focused on the pelvic girdle because of pain in the right hip and groin which subsequently involved also the left side. This was associated with an inability or disinclination to use the muscles of the hips. There was also an accompanying high temperature and blood changes indicative of an acute and severe infection. One might consider the localization of infection in the glands of this region but from the description of the physical examination, the superficial glands at least, although slightly enlarged, were not tender and gave no suggestion of suppurative lymphadenitis.

With the lymphatic system ruled out of the picture and in the presence of the evidence of septicemia, one might expect the pelvic symptoms to arise from either an osteomyelitis of the pelvic bones or a thrombophlebitis of pelvic veins. Inasmuch as there was some swelling over the upper gluteal region on the right side with a definite localized tenderness and hyperesthesia of the overlying skin, the suspicion of deep abscess formation probably from an osteomyelitis of the left ilium would be considered. Exploration, however, failed to reveal a sub-muscular abscess, nor was any evidence of bone infection found.

The secondary hemorrhage which occurred in this operative wound is difficult to understand since it occurred from a wound in an area where no blood vessel of much size is normally found. Since the hemorrhage did not occur until some six days after operation, one must consider it to be due to infection with secondary necrosis of a vessel wall rather than from a slipped ligature. If a simple bandage pressure promptly stopped the hemorrhage, it could not have been from a vessel of major importance.

The third and terminal phase of this illness would seem to be the result of a vascular acci-

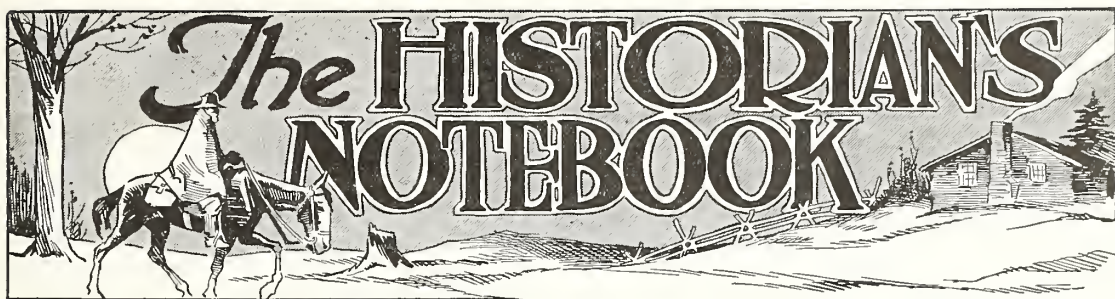
dent. The suddenness with which the terminal attack occurred accompanied as it was by pallor and rapid, small pulse with death supervening in a matter of minutes would lead one to believe that they must be dealing with either an internal hemorrhage or a thrombotic or embolic process. Both of these conditions might be predicated upon the theory that the heretofore unexplained pain in the hips and buttocks might have been an expression of thrombophlebitis of some of the pelvic veins. This condition might lead to the separation of a massive embolus which found it was to the pulmonary artery; or a septic periphlebitis might cause a mycotic aneurysm of a continuous and accompanying artery with its secondary rupture. Pulmonary embolism may arise from inflamed veins anywhere and during any acute infection. Pelvic veins are a common source of emboli following operation upon the prostatic gland and upon the pelvic organs of women.

It is my conviction that most of the sudden deaths occurring in infected cases are due to massive pulmonary emboli. In a real occluding embolism there appears sudden collapse, cyanosis or pallor with livid lips; the wrist pulse is absent or is rapid, small and irregular. There is, however, usually pain in the chest, severe dyspnea and widely dilated pupils. These latter symptoms are not noted in the history of the terminal attack in this case. Death may come so promptly in massive embolic blockage that no diagnostic symptoms manifest themselves. Severe internal hemorrhage not infrequently produces death in a silent fashion and the meager symptoms as stated regarding the death in this case would be in consonance with this condition.

Dr. H. L. Reinhart:

Anatomic diagnosis: Septicemia, multiple abscesses of lungs and heart, acute fibrinopurulent pleuritis and pericarditis, acute splenic tumor, acute glomerulonephritis.

Unexpected deaths of hospital patients are most frequently due to a clinically latent development or progression of the disease or some process associated with the disease which does not cast the usual shadow of impending dissolution. In this case the serious prognosis attending a staphylococcus septicemia reflected by the positive blood culture was realized. Hopes for recovery were kindled by the apparent clinical improvement following the administration of sulfanilamide and sulfapyridine. But the autopsy revealed a progression of the disease process in spite of the clinical improvement. This same phenomenon has been repeatedly noted, both clinically and at autopsy, in patients receiving sulfanilamide and its derivatives, namely: progression of the disease in the face of clinical improvement, and may lure the clinician into an unguarded, over-optimistic prognosis.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Medical Notes on Knox County*

Part II

Dr. Israel Bedell, Mt. Vernon, was born in New York, October 19, 1834. He spent his youth on a farm. His father was born in Massachusetts, and his mother in Connecticut, and emigrated to Ohio about 1848. He commenced reading medicine with Dr. McCarther, of Circleville, and finished his course of reading with Drs. Russell and Thompson, of Mt. Vernon. The first course of lectures he attended was at Ann Arbor. He finished his course at the University of New York, in New York City, March 3, 1863. He taught school for some nine terms prior to entering his course of reading medicine. About six weeks after his graduation he was examined at Columbus and appointed first assistant surgeon of the Sixth regiment, Ohio volunteer infantry, formerly the Guthrie Grays of Cincinnati, Ohio, and reported to his regiment in the field at Bridgeport, Alabama, and remained with it until the regiment was discharged.

On his return home he was appointed contract surgeon, and was stationed at Camp Dennison, and had charge of it about eight months. He received a commission as first assistant surgeon of the One Hundred and Fourth Ohio regiment, but was not mustered into service. He came home and located in Cardington, Ohio, where he remained about two years, and then came to Mt. Vernon. He associated himself with Dr. Bryant, and continued with him two years when the health of Dr. Bryant gave way, and the partnership was dissolved.

Dr. Bedell married Miss Lydia L. Sealts, of Mt. Vernon, in 1863. They had four children born unto them—three sons and one daughter.

* * *

Dr. Jennie Brown, is the third daughter of Gilbert Bryant, the first merchant in Mt. Vernon. She was born May 18, 1819, and was married to Dr. Joseph Brown, February 25, 1851, who was a professor of the Eclectic Medical College of

Cincinnati. She read medicine with her husband, attended lectures at Cincinnati, also at Syracuse, New York, where she graduated in 1854. She assisted her husband in his practice until her graduation. Shortly after she graduated her husband moved to Lyons, Iowa, where they erected a health institute, which they conducted with success for two years, when they sold out and went to Chicago, where they practiced for years, during which time her husband died (June 20, 1874). She was so unfortunate as to be burned out twice, which left her in limited circumstances. In April, 1873, she returned to Mt. Vernon, and has been engaged in her profession since. She was the fourth lady graduate in medicine in the United States.

* * *

Dr. Cassander E. Bryant, Mt. Vernon, was born in Knox County, Ohio, March 3, 1826. He spent his youth on a farm, attending school in the winter at the country schools, and at the schools at Fredericktown. When about 21 years of age he commenced reading medicine with Dr. Lewis Dyer, of Fredericktown, and with Dr. T. R. Potter, his uncle, of the same place. He attended two courses of lectures at Jefferson Medical College, Philadelphia, graduating in the spring of 1850, and began practice the same year in Fredericktown, with his preceptor, Dr. Potter. He remained there one year and then came to Mt. Vernon. He practiced with Dr. W. R. McClelland about five years and with Dr. J. N. Burr for some four years, being in partnership with them. In the spring of 1868, on account of failing health, and in order to get out of practice, he went to Europe, and traveled extensively, remaining there during the summer.

June 2, 1857, he married Miss Caroline L. Scott, daughter of the late A. G. Scott, of Gambier, Ohio. They have two children, both daughters.

* * *

Dr. Jonathan Burr, Mt. Vernon, was born in Fairfield County, Connecticut, November 15, 1800.

*From History of Knox County, Ohio, 1803-1881; A. A. Graham & Co., Publishers.

Dr. Burr's family are of English extraction. His ancestor was Jehu Burr, who came to America with Winthrop's fleet in 1630, and settled in Roxbury, Massachusetts. They belong to the Puritan branch. Ozias Burr, the father of the subject of this sketch, was twice married. His first wife was a Miss Lois Jennings, and his second wife was Miss Elizabeth A. Couch. One child was the issue of the first marriage—a daughter—who married Mr. Charles Sherwood, and resides near Bridgeport, Connecticut. By the second wife



Jonathan Burr, M.D.

eight children were born in Connecticut and one in Ohio, making in all ten children by the two marriages.

Dr. Burr is the second son by the second marriage. His parents immigrated to Ohio in 1818, and settled in Franklin County, near Worthington. They brought with them a family of eight children. Young Burr taught school his first winter in Ohio, and the following spring began reading medicine with Dr. Daniel Upson, of Worthington, with whom he studied one year. In 1820, he went to Columbus and entered the office of Dr. Samuel Parsons, with whom he read medicine until the fall of 1822, when he went to Transylvania Medical College, Lexington, Kentucky, and attended the winter's course of lectures.

In the summer of 1823, he associated himself with Dr. James R. Hill, of Delaware, Ohio, and continued to practice his profession with him until the spring of 1825, when he came to Mt. Vernon, May 6th. Dr. Burr is the oldest physician in the city. He soon had an extensive practice, and retains it up to the present time. When he located in Mt. Vernon he found only two physicians in practice here, one of whom shortly left the place, leaving the field to Dr. Burr and his one competitor. The faculty of Starling Medical College at an early day conferred the honorary degree of M.D. on Dr. Burr.

May 6, 1830, Dr. Burr was united in marriage with Miss Eliza Ann Thomas, daughter of the

Hon. Richard S. Thomas. As a result of their union three children were born—two daughters and one son.

Dr. Burr was one of the members that established St. Paul's Protestant Episcopal Church at Mt. Vernon, and has been an active member and officer thereof for more than fifty years. He has been a trustee of the Theological seminary and Kenyon College, located at Gambier, Ohio. He also has been for more than fifty years an active member of the Masonic fraternity. He aided and assisted in the formation of the Grand Commandery of Ohio, and was its first captain general. The doctor has often attended the meetings of the Grand Masonic bodies, and has been elected to posts of honor therein, such as deputy grand master of the Grand Lodge, and deputy high priest of the Grand Chapter.

* * *

Dr. George B. Hubbell, Hilliar township, Rich Hill postoffice, was born in Bloomfield township, Knox County, now Morrow County, August 21, 1819. His parents were among the early settlers of that county, having come from Connecticut in 1816, and located in that section, where Preston Hubbell, father of the subject of this notice, died in 1822. His wife still survives him at the age of 82 years. George spent his youth on the farm. When he was about 20 years of age he commenced reading medicine with Dr. Page, with whom he read for one year, and then went to Bath County, Kentucky, and read two years with his uncle, Dr. Burton Hubbell. After his course of reading he returned to his native place and began the practice, and remained about six years, then went to Centreville, Delaware County, Ohio, where he practiced for 14 years, and then went to Indiana; thence to Kansas, where he remained for some time, and returned to Indiana, and thence to Morrow County, Ohio.

December 16, 1841, he was married to Miss Nancy Fox, and as a result has a family of four children, two sons and two daughters. Mr. Hubbell has been a consistent member of the Methodist church since he was 21 years old. He has been temperate in his habits, and never recollects of having taken any spirituous liquors as a beverage, and he has never to his recollection been guilty of profanity. He is a man of will power, and can resist the temper. In 1880 he was elected justice of the peace, and will no doubt, fill the position with ability and good judgment.

* * *

Dr. Jacob Hull, postoffice, Howard, was born June 22, 1841. In 1858 he went to Illinois and worked on a farm in summer and taught school in winter for about five years. The last year he commenced the study of medicine. He has been a citizen of Howard since 1874, and has quite an extensive practice.

Tuberculosis Abstracts

Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

APRIL is the month in which tuberculosis associations proclaim the importance of the early diagnosis of tuberculosis. Through various channels of publicity, the public is urged to take heed of the early symptoms. They are told also about the advantage of the tuberculin test and the x-ray as means of discovering tuberculosis even before symptoms appear. Physicians play their part by meeting the demand for more prompt and precise diagnosis. Dr. Sweany, who contributes this number of Abstracts, sees clinical tuberculosis through the eyes of the pathologist familiar with end results. An understanding of what lies beneath the often obscure signals of approaching tuberculosis should be valuable to the practitioner whose field of battle is mostly in the sick-room.

WHAT THE DOCTOR SHOULD KNOW

After the tubercle bacillus was discovered, tuberculosis was soon found to be a generalized or systemic infection which only gradually becomes focalized in various organs as healing takes place. During the "generalization" phase there may be an ephemeral temperature lasting from two to ten days, after which few symptoms occur until advanced disease appears. The majority of primary infections (about 80 per cent in America) take place in the lungs. The rate of infection varies widely in different countries, even in different communities, but is generally decreasing.

The first, or primary infection in children occurs as varying sized patches of bronchopneumonia in the lung. From the local focus the bacilli follow the lymphatic vessels and form lesions in the various lymph nodes along the course of the lymphatics. The infection may finally reach the left subclavical vein whence it travels to the right side of the heart and becomes disseminated in the lungs. The bacilli many times pass through the pulmonary capillaries into the left side of the heart and from there to the general circulation to become deposited in all organs of the body.

All but an insignificant number of infections due to small dosage heal, but where there has been heavy exposure the lesions heal in only about 75 per cent of the cases. The lesions that do not heal may slowly spread by a growth or rupture in the bronchi or blood and lymph vessels. The infection may also spread from the lymph node lesions which may overflow and rupture. The bacilli may enter the blood stream, get into the general circulation, and cause a systemic dissemination. The average "latent" or "quiescent" period from the

time of infection to the appearance of clinical disease has been found to be ten years.

Primary tubercles of adults on the other hand usually involve the lymph nodes less, have poorer capsules, and tend to localize more in the upper lung lobes. Therefore, the number of protracted primary "sequelar" lesions and exacerbations in the adults are fewer compared to those frequently found in the lymph nodes of children. For the same reason a more rapidly progressive pulmonary process is likely to occur in the adults. In brief, when the adult type produces disease it proceeds rapidly and is confined largely to the lung parenchyma. The average "latent period" is usually about three years.

After the first infection there is an acquisition of "allergy" or hypersensitiveness of the body cells to tuberculin. This sensitization of the body cells is shown by the tuberculin skin reaction. A relative immunity also develops largely independent of the allergy, although the latter in moderate degree may contribute to the resistance to infection. In excessive degrees allergy may aggravate the infection. The effects of these changes in the basic nature of the host tend to cause a localization of the process in the body organs and tissues, most of which occur in the lungs. This organ localization only develops gradually and is never complete except in cases that are healing.

The disease may continue as a "progressive primary lesion," an "exacerbation of a primary lesion," or be a much less frequent "new infection from without."

The majority of "reinfection" lesions are found along the subapical bronchi; the posterior upper quarter of both lungs are the sites of predilection in over 90 per cent of the early cases.

On the roentgenogram the lesions appear as small circumscribed or cloudy flecks a few millimeters in diameter.

The infection may spread to the other organs by the blood or lymphatic routes as it usually does during or after the primary infection. Direct implantations of bacilli cause laryngitis, enteritis, cystitis.

Following in the wake of the disease, non-specific "sequelar" lesions occur, including the distressing tracheobronchitis, bronchiectasis, bullous emphysema, and finally heart failure due to fibrous obliteration of the pulmonary capillaries and arterioles.

Apart from the preceding conditions caused directly or indirectly by the tubercle bacillus there



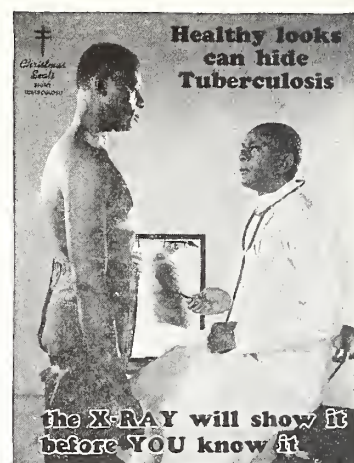
TUBERCULOSIS
before symptoms appear

CHRISTMAS SEALS FIGHT TUBERCULOSIS

"Healthy looks" can hide
TUBERCULOSIS



Christmas Seals Fight Tuberculosis



Reproductions of posters (the originals in colors) used by local tuberculosis associations in the Early Diagnosis Campaign. About eight million pieces of printed matter will be distributed.

is the whole gamut of diseases that may be associated with tuberculosis as a concomitant or associated process. Skill is required to differentiate each one from tuberculosis.

The physician, therefore, seems to be just coming into his own in the diagnosis and treatment of tuberculosis. The medical man in the home has the best opportunity and is in the majority of cases the only one to get the disease under control early. This is a hopeful trend.

In Detroit, Douglas has observed that about 75 per cent of diagnoses of tuberculosis are made by the general practitioners. Pleyte's recent surveys in Wisconsin leave little doubt that the general practitioners can and should play an important role in case-finding. The "contacts" which made up 47.2 per cent of the group had 14.4 times the infection rate as that for the state as a whole. The most important group of all was the group of cases submitted by the practitioners of the state who have been encouraged to send films to the Wisconsin Anti-Tuberculosis Association for consultation. This group of cases was made up of patients who had had a contact with an open case, were ill, or had been or were suspected of being ill. In this group the rate was forty times the average morbidity rate for the state.—Henry C. Sweany, M.D. From the Research Laboratories of the City of Chicago Municipal Tuberculosis Sanitarium.

A real campaign against tuberculosis demands a genuine investigation carried out with general practitioners looking for patients in the community, in industry and in home-making. We are finding an appreciable amount of tuberculosis through testing campaigns in schools but it is not one-quarter of what we would find if the campaign were extended to the groups where tuberculosis is more prevalent.—Esmond R. Long, Philadelphia, Tuber. Conf., 1939.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16.

American Medical Association, New York, June 10-14.

American Academy of Pediatrics, Region 1, Washington, D. C., April 4-6.

American Association of the History of Medicine, Atlantic City, May 4-5.

American Association for the Study of Goiter, Rochester, Minn., April 15-17.

American College of Physicians, Cleveland, April 1-5.

American Association for the Study of Neoplastic Diseases, Louisville, Ky., April 11-13.

American Orthopedic Association, Kansas City, May 4-10.

American Pediatric Society, Skytop, Pa., May 2-4.

American Psychiatric Association, Cincinnati, May 20-24.

American Public Health Association, Detroit, October 8-11.

American Surgical Association, St. Louis, May 1-3.

Association of American Physicians, Atlantic City, May 7-8.

Association of Military Surgeons of U. S., Cleveland, October 10-12.

National Tuberculosis Association, Cleveland, June 3-6.

Northern Tri-State Medical Association, Battle Creek, Mich., April 9.

Society for the Study of Asthma and Allied Conditions, Atlantic City, May 4.

Annual Report of the Committee on Public Relations and Economics

PROBABLY most of the activities of the Committee on Public Relations and Economics, since the last Annual Meeting, are familiar to most of the members as reports of the committee's work have been submitted to The Council from time to time and have been published in *The Journal* as a part of the minutes of Council meetings. However, a brief resumé of its work is presented by the committee at this time for the sake of emphasis and review.

Public Relations—One of the most important assignments of the committee during the past year has been to assist The Council in establishing the Bureau of Public Education as a part of the State Headquarters Office. The Bureau has been operating since last June under the guidance of The Council and this committee. In general, it has accomplished much and now is established on a sound basis. We may anticipate even greater success during the ensuing year provided, of course, the Bureau has the active support and cooperation of all county medical societies and the membership at large. The Bureau has been very careful to carry on its activities in accordance with the policies laid down by The Council and has followed the advice of this committee at all times. A complete report on the work of the Bureau is published elsewhere in this issue of *The Journal*.

Legislative Activities—The 1939 session of the Ohio General Assembly, which was in full swing at the time of the last Annual Meeting, was one of the most difficult sessions which has ever confronted the State Association, primarily because the Association sponsored a number of important pieces of legislation. Due to the excellent work of the Sub-Committee on Legislation, assisted by the legislative committeemen and officers of county medical societies, the legislative activities of the State Association in the 1939 session were, generally speaking, very successful. No legislation detrimental to public health or to the interests of the medical profession was enacted. On the other hand, a number of constructive proposals which had the support of the medical profession became laws. Reports on the legislative activities of the State Association and the proceedings of the General Assembly have been published in *The Ohio State Medical Journal*. Those articles are herewith made a part of the report of this committee.

It should be noted that much of the success of our legislative activities last year is due to the pre-election work which was done by local legislative committeemen and selected commit-

tees in the various sections of the state when several hundred candidates for public offices were interviewed, informed of the attitude of the medical profession on various questions and were requested to look to the medical profession for advice and guidance on medical and public health matters. We recommend that a similar program be carried on prior to the General Election next November, for the purpose of acquainting candidates for office with the views of the medical profession and obtaining accurate information about candidates for dissemination among physicians of the state. We are convinced that the medical profession can mold public opinion and will be recognized as an authority on medical and public health legislation if all members of the profession take an active part in this work. A few committeemen should not be expected to shoulder the entire responsibility. There must be concerted effort on the part of the profession.

National Developments—As pointed out in the last annual report of this committee, the medical profession, during recent years, has had to interest itself in developments at Washington, both legislative and administrative. During the 1939 session of the United States Congress the Ohio State Medical Association took a definite stand in opposition to the enactment of the so-called Wagner National Health Bill and its views were made known to Ohio's representatives in Congress. The President of the Association, Dr. Smith, appeared before a Congressional Committee holding hearings on the Wagner Bill. Largely as a result of the activities of the medical profession throughout the entire country, the Wagner Bill was not enacted. At the present time there are strong indications that the original Wagner Bill has been definitely shelved. Nevertheless, we dare not discontinue our activities in the national field as it is quite likely that those who are advocating the establishment of a national system of government controlled health and medical services will continue with their efforts to make medical and health legislation a national political issue. The present situation might properly be termed "the lull before the storm" which means that the medical profession must be just as alert now and in the future as it was in 1939 when the Wagner Bill was on the "must" list of the national administration and its spokesmen in Congress.

Hospital Building Proposal—At the request of President Roosevelt, the present Congress is considering a proposal introduced by Senator Wagner of New York, providing for a Federal hospital building program under which small hospitals would be erected at Federal expense

in communities where there is a definite need for such facilities. This proposal, S-3230, has been analyzed in articles in *The Ohio State Medical Journal* (February and March, 1940, issues). In general, this proposal is in line with the policies of the medical profession, especially with respect to the principle that Federal legislation should recognize the local character of problems in medical service and that assistance should be given only to those communities where the need is apparent. This latest proposal is being watched carefully by representatives of the medical profession and the attitude of the profession of Ohio will be made known to Ohio's representatives in Congress at the appropriate time. At a meeting of The Council of the State Medical Association on February 18, 1940, The Council on recommendation of this committee adopted a resolution requesting the American Medical Association to offer an amendment to the hospital building proposal to provide definitely that county and state medical societies shall be consulted when surveys are made to determine the need for any hospital to be built under the provision of that act, should it become a law.

A Constructive Program—Realizing that the medical profession must present a constructive program for meeting the health and medical needs of the citizens of Ohio, the Committee on Public Relations and Economics after thorough consideration, prepared a statement of policy and presented it to The Council at its meeting on December 10, 1939. The statement which should serve as a guide to members of the State Association and component medical societies in efforts to inaugurate practical programs to bring the advantages of preventive medicine and adequate medical care within the reach of all persons in Ohio is as follows:

"It is the sincere desire of the medical profession of Ohio to bring the advantages and benefits of preventive medicine and necessary medical care within the reach of all persons in this state, regardless of their economic position.

"Services for the protection of public health and facilities for providing good medical care in Ohio are equal to those of any other state—superior to those of many states. At the present time the sickness and death rates of Ohio compare favorably with those of any other state. Incidentally, recent data show that today the sickness and death rates of the entire United States are lower than those of any other great country.

"Despite this favorable situation which has been brought about through already established public health services as well as by the present system of private practice of medicine, efforts are being made to persuade Ohio citizens that present programs and technics are antiquated and that radical substitutions must be adopted.

"Proposals to 'revolutionize' health and medical services throughout the United States have been advanced. At the next regular session of the United States Congress, convening in January, the national legislative body may be

asked to enact one or more of these proposals. Proponents of these measures visualize a gigantic Federal health program, to be financed through taxation, which of course would be subject to political domination. In return for additional Federal hand-outs in the form of so-called grants-in-aid, Ohio and the other states would be expected to inaugurate systems of state-Federal subsidized medical service and to establish health services virtually controlled by one or several Federal agencies.

"The medical profession of Ohio is convinced that when the citizens of Ohio fully realize the implications of such proposals, they will refuse to support them, not only because they will resent increased Federal control and dictation over health and medical services in Ohio, but also because the inevitable results of politically-controlled health and medical services are the lowering of the standards of health protection and an inferior brand of medical care.

"As in all things, there is room for improvement in this state in present methods of protecting the health of the people and in distributing medical services. Sound and workable plans to bring this about have been developed and new ones are being inaugurated through the cooperation of existing Ohio agencies, the medical profession and the people of this state. Health and medical problems and needs in Ohio can be met without exorbitant public expenditure, without regimenting the physicians of the state, without an unlimited increase in the powers and duties of Federal bureaus, and without abandonment of the principles of self-reliance, free will and personal responsibility on the part of the citizens of Ohio.

"Assuming that there is a need for some improvements and that this state is capable of taking the initiative, the Ohio State Medical Association, whose membership numbers 6,400 physicians and surgeons, offers the following recommendations as the basis for a constructive approach:

- "1. Necessary activities of the State Department of Health and the employment of competent professional and technical personnel within the department should be financed as far as possible from state funds.

- "2. Local political subdivisions should be encouraged to provide adequate funds for the efficient operation of county and city health departments.

- "3. Present activities of the state and local health departments in Ohio should be expanded and new public health programs undertaken only after their need has been determined.

- "4. State-aid should be made available, if resources will permit, to local health departments on proof that aid is needed to maintain necessary services.

- "5. Federal funds should not be used by state and local political subdivisions unless state and local funds for necessary public health activities are inadequate to finance such services.

- "6. Administrative control should be vested in local health departments in so far as possible, with the state department and Federal authorities acting in an advisory and coordinating capacity.

- "7. To increase efficiency in the medical and health activities undertaken by the Federal Government, an agency supervised by physicians should be established under which would be co-

ordinated and administered all the medical and health functions of the Federal Government, exclusive of those of the Army and Navy.

"8. Health departments should work in close cooperation with physicians in private practice and recognized medical societies in developing health programs.

"9. Adequate medical care should be brought within the reach of all Ohio citizens. When needed, local or state funds administered by official relief and public assistance agencies should be made available to meet the costs of providing such medical service for the indigent and medically indigent. Administration of medical care programs for the indigent should be a function of local relief and public assistance agencies, working in cooperation with the local medical profession.

"10. Medical care programs should assure the recipients of such services the right to select their own physician and the confidential patient-physician relationship should be maintained. Participation in public health programs by physicians in private practice should be encouraged.

"11. Educational programs to acquaint the citizens of Ohio with the benefits of preventive and curative medicine and to inform them about programs developed to provide them with health and medical services should be sponsored by the medical profession and public health agencies, individually and jointly.

"12. Advisory committees composed of physicians in private practice should be established in every county by health and public assistance agencies to act as a liaison between such agencies and the medical profession and to promote proper understanding, efficiency and the coordination of activities.

"13. Should the extension of health and medical services be found necessary, already existing local facilities, services and institutions should be utilized to their capacity before new facilities are developed.

"14. The feasibility of programs to assist the low-wage earner in Ohio in financing medical care for himself and his family should be studied by the medical profession in communities where there is an apparent need for such programs. Such a study is being made now by committees of the Ohio State Medical Association.

"15. In all activities to make preventive services and medical care more readily available to the people of Ohio, the highest standards of medical practice should be maintained to insure the quality of such service."

Cooperation on Health Activities—As in the past, this committee has served as a liaison between the State Medical Association and the State Department of Health on questions of mutual interest. At the request of Dr. R. H. Markwith, State Director of Health, the committee, on several occasions, has advised the Department on matters of policy and procedure. Last Fall the committee and the State Director of Health discussed the matter of inaugurating a program in Ohio to be financed primarily from Federal funds. After thorough consideration, the committee advised the Director that it felt such money, amounting to approximately \$40,000, could be used advantageously in Ohio. The following

suggestions were made to the Director after approval by The Council at its meeting on December 10, 1939:

"1. That the State Director of Health make application for the funds referred to above.

"2. That such funds be used only for educational work and the furnishing of materials and services for indigents in counties where the need is found to be the greatest.

"3. That the major portion of the funds be used for the eye programs and pneumonia program.

"4. That part of the money be used for the purchase of sera and drugs used in the treatment of pneumonia, such to be made available to physicians treating indigent cases.

"5. That physicians participating in the treatment of cases under the eye programs be selected by the director and the Public Health Council on the basis of their fitness and ability.

"6. That physicians rendering treatment as a part of the above proposed programs be paid on a fee basis.

"7. That it might be desirable for the director to select one or more competent physicians to act in a consulting and advisory capacity to the State Department of Health and to physicians rendering services on a fee basis as a part of such programs; such consultants to be paid a salary on a part-time or full-time basis at the discretion of the director.

"8. That funds set aside for the cancer and tuberculosis programs be used solely for educational work, including efforts to coordinate activities now being carried on by various groups mutually interested in these fields."

The committee believes that much needed improvement is being made in Ohio's public health program. It is anxious to cooperate with the State Department of Health in furthering activities which are basically sound and where there is an apparent need for such activities. It believes that the statement of policy referred to earlier in this report offers a sound basis for public health and medical programs whether national, state or local in scope.

Group Medical Service Plans—Since early in the Fall of 1939 the Committee on Public Relations and Economics has actively assisted the Committee on Medical Service Plans. The activities of that committee are, at the present time, in the preliminary stage. Right now the committee is concentrating on a campaign of education with respect to group medical service plans among the membership of the State Association through a series of district meetings. In this way the committee hopes to win the active support of the membership for its future efforts, one of which undoubtedly will be the preparation of an enabling act and the sponsorship of such act during the next regular session of the Ohio General Assembly, through which sound legal basis can be established for the inauguration of group medical service plans by local medical societies in communities where there is a need and a desire for such programs. The Committee on Public Relations and Economics realizes that

these activities are experimental in character and for that reason must be carried on cautiously so as to avoid mistakes and complications. The membership will be kept fully acquainted with the work of the committee, as the purposes of the committee can not be achieved unless the committee's recommendations have the whole-hearted approval of the membership. Developments in several states where group medical service plans have been launched, notably Michigan, California and New York, are being watched and analyzed so that Ohio may benefit through the experiences accumulated in such states. If properly established and efficiently administered, group medical service plans may provide the answer for three important questions, namely:

1. How to bring about more adequate distribution of medical services for the low income groups;

2. How to provide a method whereby those in the low income groups may provide medical services for themselves and their families on a prepayment basis under the direct supervision of the medical profession; and,

3. How to establish additional proof that government controlled systems of medical care are unnecessary.

This activity is one of the most important on the agenda of the State Medical Association for the ensuing year. As pointed out, members will be apprised of the work of the Committee on Medical Service Plans from time to time and members should not hesitate to request specific information as to the committee's work at any time, offering recommendations and suggestions to the committee to assist it in its studies and deliberations.

Hospital Programs—The growth of group hospital service programs in Ohio has been watched with interest. For the most part such programs are being carried on properly and in line with policies mutually agreeable to hospitals and the medical profession. There has been, in some communities, disagreement between hospital service associations and the medical profession regarding coverage included in contracts sold by such associations, especially where there has not been a proper differentiation between hospital service and medical service. At a meeting of The Council of the State Medical Association on October 8, 1939, the Committee on Public Relations and Economics submitted a statement of policy on this question. That statement which was approved by The Council reads as follows:

"It is essential that the medical profession take an active interest in all proposals or programs affecting the care of the sick. Leadership must be assumed by state and local medical societies.

"Realizing that there is increasing public interest in programs to provide hospitalization on a voluntary insurance basis and anticipating the

expansion of group hospitalization programs in Ohio under the provisions of enabling legislation enacted at the recent session of the Ohio General Assembly, the Council of the Ohio State Medical Association believes that all county medical societies should give the question of group hospitalization immediate and earnest consideration.

"Inasmuch as hospital service programs are administered through local units, the responsibility for considering medical questions which may be involved rests with the individual county medical society. The Council suggests that county medical societies in counties where hospital service programs are now in operation and county medical societies where such programs are under consideration carefully evaluate the contracts being sold, or which are being formulated by hospital service associations. Special attention should be given to the coverage provisions of such contracts.

"The Council recommends that county medical societies use the following principle as a guide in evaluating contracts and in conferences with hospital service association representatives:

"The subscriber's contract should exclude all medical services. Contract facilities should be limited exclusively to hospital facilities such as bed, board, operating room, medicines, surgical dressings, general nursing care, and services of intern and resident staff in assisting the subscriber's attending physician.

"If the above principle is complied with by all local hospital service associations in formulating a schedule of benefits, the result would be a certain uniformity of policy and procedure throughout the state, efficiency in administration, and absence of misunderstanding.

"The medical profession of Ohio believes that group hospitalization programs, in the hands of reputable and efficient administrators, are of definite public benefit, providing such programs are limited to hospital services and do not include medical services, which inclusion would have an undesirable effect on the practice of medical specialties in hospitals and on the quality of the service rendered. Group hospitalization plans operated in accordance with the above principle should have the active co-operation of the medical societies in the localities in which they operate."

It is suggested by the committee that all county medical societies make use of this statement of policy in conferences with hospital authorities.

Fees and Insurance Papers—Inasmuch as there has been some confusion in the minds of members of the medical profession and representatives of insurance companies with respect to the charging and payment of fees for services rendered by physicians in supplying information to insurance companies, the committee has given this question thorough consideration on several occasions. At a recent meeting of The Council, the committee presented a report on this matter in which was incorporated the following statement of policy for the guidance of members, which statement subsequently was officially approved by The Council.

"Insurance blanks and papers which a physician may be called upon to execute at the request

of insurance companies or the insured should be classified as follows: First, those for the benefit of the insurance company; and second, those for the benefit of his patient (or claimant).

"The Council believes that a physician is justified in charging an insurance company for the filling out of papers furnished by the company in cases where such information is for the benefit of the insurance company.

"With respect to the second class of insurance papers where the information is for the benefit of the patient (or the claimant), The Council believes that the question of whether or not a fee should be charged the patient (or claimant) for such services is one involving physician-patient relationship and that the final decision rests with the physician."

Workmen's Compensation—The Sub-Committee on Workmen's Compensation of this committee has held several conferences with representatives of the State Industrial Commission during the past year, one such meeting being a dinner conference with members of the Commission and heads of the various administrative divisions of the Commission. As a result of these conferences, certain improvements in administering the medical phases of the Workmen's Compensation system have been made by the Commission. At the present time, the Sub-Committee on Workmen's Compensation is co-operating with the Commission on efforts to bring about much needed improvement in the system of filing and handling Workmen's Compensation Blanks, especially the C-3 (medical only) blanks. The committee has offered its assistance to the Commission in its efforts to try to eliminate fraud and abuses, especially where physicians are involved. The Workmen's Compensation investigating service, carried on by the State Headquarters Office continues to be one of the most popular and most beneficial personal services offered by the State Association to all members.

Miscellaneous—Many questions involving policy and procedure, too numerous to mention, have been considered during the past year. A few of these are mentioned to give the membership some idea as to the scope of the work of the committee: Assistance in the campaign which resulted in the defeat of the Bigelow amendments to the Ohio Constitution; cooperation with the Farm Security Administration on matters of policy and procedure in the operation of medical programs among clients of that Administration; conferences with representatives of the Division of Public Assistance on medical aspects of programs for general relief, aid to crippled children, aid to dependent children, aid to the blind, etc.; contacts with other state and Federal departments where questions of policy and procedure on medical matters were involved; furnishing of information and advice to state officials, especially on matters of appointments to state

boards and commissions engaged in administering medical or public health laws.

In conclusion, the committee desires to call to the attention of the membership that the medical profession of Ohio suffered an irreparable loss through the death of Dr. Charles W. Stone, a former president of the State Association and for many years a member of this committee. The committee depended a great deal on the advice and experience of Dr. Stone during its deliberations and in making its final decisions. His splendid services up to the time of his last illness made him a real leader in the activities of the State Association. To his family, this committee wishes to express sincere sympathy and condolences.

D. B. Lowe, M.D., Akron, Chairman
E. O. Swartz, M.D., Cincinnati
Ralph M. Watkins, M.D., Cleveland
H. M. Platter, M.D., Columbus
D. C. Houser, M.D., Urbana
Parke G. Smith, M.D., Cincinnati, ex-officio
Wm. A. Skipp, M.D., Youngstown, ex-officio
Barney J. Hein, M.D., Toledo, ex-officio

Testimonial Dinner Given In Honor of Dr. and Mrs. McCollam, Uhrichsville

Dr. and Mrs. James A. McCollam, Uhrichsville, were honored by members of the Tuscarawas County Medical Society and their wives, with a testimonial dinner, at the Buckeye Hotel, Uhrichsville, Wednesday, March 6, the 50th anniversary of Dr. McCollam's entrance into the practice of medicine. Among the speakers who lauded Dr. McCollam's career were Dr. G. I. Goodrich, Dover, president of the society; Dr. J. W. Calhoun, Uhrichsville; Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal*, and Charles S. Nelson, Columbus, Executive Secretary of the Ohio State Medical Association. Mrs. H. M. Coleman, widow of a New Philadelphia physician, paid tribute to Mrs. McCollam. Dr. McCollam was presented with an autographed album and Mrs. McCollam with a bouquet of roses.

The Uhrichsville Buckeye Club also honored Dr. McCollam at a luncheon on the same day, in recognition of his active interest in community affairs. He served three times as president of the Uhrichsville Board of Trade; nine years as head of the Twin City Benevolent Association and nine years as city health commissioner. At present Dr. McCollam is a member of the local government committee of the Ohio Chamber of Commerce. He has been an elder of the Church of Christ for 42 years. Dr. McCollam has been legislative committeeman for the Tuscarawas County Medical Society for many years. He has also served the society as president and secretary several times.

Annual Report of the Committee on Education

SECTION 5 of the Constitution of the Ohio State Medical Association as revised in 1936 provides for a Committee on Education which "shall consider and devise means of (1) extending the educational work of this Association for the benefit of its members, working with the component societies and affiliated district societies, whenever possible; and (2) furthering the education of the general public in health matters and fostering a sane point of view about medical care".

The committee is of the opinion that much has been done during the past three years towards accomplishing the purposes enumerated, through the activities of the main committee and its sub-committees.

Following an intensive study of the postgraduate activities of a number of state medical societies and their possible adaptation in Ohio, the committee in 1937 evolved a five-year postgraduate program for the Ohio State Medical Association, designed to give members an opportunity to keep abreast with contemporary medicine.

The first course was held in the Fall of 1937 and in the Spring and Fall of 1938. In the Fall of 1939 the second course was presented. These courses have been given in five sections of the state, comprising 77 counties. The committee believes that a brief review of the 1939 course and a summary of plans for 1940 will be of interest.

REGIONS AND ATTENDANCE

In the Fall of 1939 the second year's course of regional postgraduate lectures was presented in regional centers listed below, with attendance statistics:

Region A—Findlay-Defiance. Total attendance, 490; individual physicians attending, 237; average attendance at each session, 82.

Region B—Chillicothe. Total attendance, 516; individual physicians attending, 197; average attendance at each session, 86.

Region C—Mansfield. Total attendance, 748; individual physicians attending, 261; average attendance at each session, 125.

Region D—Cambridge. Total attendance, 338; individual physicians attending, 112; average attendance at each session, 56.

Region E—Troy. Total attendance, 333; individual physicians attending, 145; average attendance at each session, 55.

SPEAKERS AND TOPICS

The course consisted of 12 lectures presented at six meetings held in most instances at intervals of two weeks. An effort was made to select topics which lent themselves to emphasis on preventive medicine. Lecturers were requested to prepare addresses which would be of special interest to general practitioners. Out-

lines or abstracts were prepared by members of the Sub-Committee on Regional Postgraduate Lectures and furnished to speakers to assist them in preparing their talks and for use in the official program so that members would get some idea as to the way each subject was to be handled. Incidentally, at this time the committee wishes to express appreciation to the following Cleveland physicians who assisted committee members in preparing these outlines: Dr. Arthur H. Bill, Dr. William H. Weir, Dr. Lawrence A. Pomeroy, Dr. Roy H. Metz, Dr. Russell H. Birge, Dr. John A. Toomey, Dr. Thomas E. Jones and Dr. John A. Holloway.

Subjects presented in the 1939 course were:

1. Bleeding from the Uterus.
2. What Shall We Do for the Pregnant Woman with Syphilis?
3. Obstetrics in the Home.
4. Acute Surgical Conditions in Childhood.
5. Convulsions in Childhood.
6. The Deformities of Poliomyelitis Must Be Prevented.
7. Importance of Routine Rectal Examinations.
8. Helping the Public Reduce the Mortality of Acute Appendicitis.
9. Protecting the Heart of the Patient with High Blood Pressure.
10. How to Handle the Patient with Asthma.
11. Hints to the General Practitioner in the Handling of Acute Eye Conditions.
12. Present-Day Viewpoints on the Diagnosis and Treatment of Cancer.

During the Summer chairmen were selected to take charge of local arrangements in the various regional centers, and much of the credit for the success of the lectures properly goes to these chairmen: Dr. L. H. Goodman, Findlay; Dr. John U. Fauster, Jr., Defiance; Dr. R. C. Bane, Chillicothe; Dr. Mabel Emery, Mansfield; Dr. O. Reed Jones, Cambridge; and Dr. Berton M. Hogle, Troy.

Dates for the six sessions in each region were set in accordance with the wishes of the local physicians, the day generally being that on which physicians in the locality took the afternoon and evening off.

SPEAKERS COMMENDED

Lecturers were selected with great care. Helpful suggestions were obtained from officers and committeemen of the State Association and in many instances from county society officers. An earnest effort was made to invite physicians of extensive clinical experience and proved speaking ability to take part. A total of 51 speakers were used. Most of them presented a worth-while, practical message for which they deserve the sincere thanks of the entire membership. None of the speakers received an honorarium. Their travel expenses were paid, but some did not submit an expense statement. Their willingness

to sacrifice time and even money in behalf of their colleagues is most commendable.

Those who presented the lectures were: Doctors Edwin J. Stedem, Columbus; John A. Toomey, Cleveland; John E. Rauschkolb, Cleveland; H. M. Clodfelter, Columbus; Marion E. Black, Cleveland; L. E. Seyler, Dayton; M. Tischer Hoerner, Dayton; L. A. Pomeroy, Cleveland; Elmer G. Horton, Columbus; Chas. E. Howard, Cincinnati; R. S. Dinsmore, Cleveland; John E. L. Keyes, Cleveland; Robert L. Faulkner, Cleveland; M. M. Zinninger, Cincinnati; E. W. Netherton, Cleveland; Frank C. Clifford, Toledo; Glen K. Folger, Cleveland; Karl D. Figley, Toledo; John W. Holloway, Cleveland; Mont R. Reid, Cincinnati; Sterling H. Ashmun, Dayton; Clayton C. Perry, Cleveland; Frank E. Stevenson, Cincinnati; Derrick T. Vail, Cincinnati; Harold N. Cole, Cleveland; Jonathan Forman, Columbus; Jos. D. Heiman, Cincinnati; Charles W. Pavey, Columbus; Johnson McGuire, Cincinnati; L. L. Bigelow, Columbus; Paul J. Fuzy, Youngstown; Albert D. Frost, Columbus; A. E. Brant, Youngstown; Edward A. Wagner, Cincinnati; Roy W. Scott, Cleveland; Louis J. Roth, Columbus; Ralph M. Watkins, Cleveland; Jas. G. Kramer, Akron; Roger O. Egeberg, Cleveland; A. B. Bruner, Cleveland; Edgar C. Baker, Youngstown; Fred M. Douglass, Toledo; Daniel J. Kindel, Cincinnati; C. C. Sherburne, Columbus; Ralph W. Eddy, Cincinnati; Milton B. Cohen, Cleveland; Lloyd B. Johnston, Cincinnati; A. D. Ruedemann, Cleveland; Robert A. Lyon, Cincinnati; W. W. Green, Toledo; Esther C. Marting, Cincinnati.

HINTS FOR LECTURERS

It may be said that the speakers who were particularly popular were those who adhered rather closely to the brochure, "Hints for Regional Postgraduate Lecturers", prepared by this committee and the Sub-Committee on Regional Postgraduate Lectures and sent to them when they accepted the invitation to be a lecturer. The suggestions sent to the lecturers were as follows:

1. Each lecture will be part of a graded course, carefully planned. Please adhere to the subject and outline assigned to you by the committee. Do not attempt to cover subjects which may have been assigned to other lecturers.
2. Remember, these lectures have been devised primarily for general practitioners, so make your talk practical and adaptable to everyday, routine practice.
3. **Emphasize diagnosis and treatment.** Bear down on specific methods. Use case reports, if available, to emphasize special points. **Speak from personal experience.** Pretend you are demonstrating a patient. Be specific.
4. Avoid theoretical or research consideration, unless reference is essential to stress some point regarding practical application.
5. Do not devote much time to anatomy, physiology, pathology and functional factors, as it may be assumed that most of your listeners are familiar with elementary, basic facts. Omit such discussions except when necessary to clarify definite points in diagnosis and treatment.
6. **Avoid using a manuscript, if possible.** An address from notes is more effective. However, extemporaneous lectures are risky as such speakers have a tendency to dilate upon un-

essential points. Have your lecture well-outlined and follow your outline and notes carefully. Close your talk with a well-constructed summary of major points.

7. Limit your lecture to 45 minutes. This time schedule will be carried out. No extra time will be granted for lantern slides, so you must allow for this in your allotted time.

8. There will be a "question and answer" period at each session, to be held at the close of the second lecture. Let your audience know that questions will be welcomed.

9. In delivering your address, **enunciate clearly and distinctly** as acoustics may be imperfect. Speak to your audience, not to your notes or the screen. If you must use a manuscript, look away from it as often as possible toward your audience. After locating points on the screen, turn back to your audience. If a microphone is provided, it is needed. **Speak directly into it.**

10. Some who attend medical meetings believe the use of lantern slides is being overdone. Use slides if they add important points to your lecture and are well made. Don't use them merely to consume time. Especially, don't use them if they are complicated, illegible, or uninteresting.

These suggestions may seem superfluous but are given (with apologies) because the committee knows from experience what the men who will attend these sessions want to hear and realizes that some well-informed speakers fail to click because of poor technic in drafting and presenting their addresses.

DECREASE IN ATTENDANCE

Attendance at the 1939 series of meetings was not as good as during the first year's course. This was given serious consideration by the Committee on Education and the Sub-Committee on Regional Postgraduate Lectures when they met in February of this year to plan for the 1940 course. A number of factors contributed to the decrease in attendance. Some of them were: The lectures were an innovation during the first year, accordingly attracting more members. Because of a change in the date of Thanksgiving it was necessary at a late date to switch the time for the fifth session from Thursday to Tuesday. There was a conflict with the opening of the hunting season. There was exceptionally bad weather for the last session. In some instances members were compelled to drive too far.

At its meeting in February the committees meeting jointly decided that there should be some material changes in the 1940 postgraduate program to revive interest and attendance. Based on suggestions from local chairmen, members at large, members of the committees, and conclusions reached after analyzing the first two years of this activity, it was decided that plans for the series of meetings in the Fall of 1940 should proceed along the following general lines:

PLANS FOR 1940 COURSE

1. That courses be held in 10 regions simultaneously next Fall. The increase in regions, with fewer counties in each region, will mean

that the lectures will be more readily available to more members, and those who attend will have a shorter distance to travel.

2. That the number of meetings be reduced to three, one in September, one in October and one in November, with a late afternoon and early evening session at each meeting. Two 45-minute talks would be made in the afternoon and two in the evening, provision to be made for a dinner between the two meetings.

3. That the programs be arranged, whenever possible, so that two speakers could handle each session.

4. That an effort be made to provide visual teaching at each of the sessions through demonstrations or exhibits.

Members of the committee believe that these changes should result in a rejuvenation of interest in this year's course. Reduction in the number of sessions to three will mean that physicians who desire to attend the complete course will have to make only three trips instead of six, although they will still hear 12 talks. It believes also that provision for a dinner and the opportunity for a social hour between the afternoon and evening sessions will prove to be an innovation which will be popular with the profession.

NEW REGIONS ESTABLISHED

Under the revised set-up, the state has been divided into 10 new regions, comprising all the counties of the state with the exception of Cuyahoga and Hamilton, where it was felt that physicians have ample opportunity for postgraduate instruction. Counties comprising each region and the regional centers selected, provided adequate facilities for the sessions are obtainable, are as follows:

Region A—Napoleon. Counties: Williams, Fulton, Lucas, Defiance, Henry, Wood, Paulding, Putnam, Hancock.

Region B—Tiffin. Counties: Ottawa, Sandusky, Erie, Seneca, Huron, Wyandot, Crawford, Marion.

Region C—Mansfield. Counties: Lorain, Medina, Ashland, Wayne, Richland, Morrow, Knox, Holmes, Coshocton.

Region D—Warren. Counties: Lake, Ashtabula, Geauga, Trumbull, Summit, Portage, Mahoning, Stark, Columbiana.

Region E—Cadiz. Counties: Tuscarawas, Carroll, Jefferson, Harrison, Guernsey, Belmont.

Region F—Athens. Counties: Muskingum, Noble, Monroe, Washington, Morgan, Perry, Hocking, Athens, Vinton, Meigs.

Region G—Columbus. Counties: Union, Delaware, Licking, Madison, Franklin, Fairfield, Fayette, Pickaway.

Region H—Wapakoneta. Counties: Van Wert, Allen, Hardin, Mercer, Auglaize, Logan, Shelby, Darke, Miami, Champaign.

Region I—Lebanon. Counties: Preble, Mont-

gomery, Clark, Greene, Butler, Warren, Clinton, Clermont, Brown, Highland.

Region J—Portsmouth. Counties: Ross, Pike, Jackson, Adams, Scioto, Lawrence, Gallia.

MUST HAVE LOCAL HELP

Methods used in the past by the State Headquarters Office for publicizing the regional postgraduate lectures will be continued. However, the promotion program must be augmented by an energetic effort on the part of the officers of county societies to enlist local interest and foster attendance. An active chairman of local arrangements is most vital to a successful course. His ability to arouse enthusiasm for the lectures in his region and to generate good fellowship at the meetings will be an important factor in their success. Incidentally, the local chairmen for the 1939 sessions at Mansfield and Cambridge found that bridge sessions for wives of physicians in attendance helped to swell registration figures.

Dr. Ralph H. Pino, Detroit, recently said: "The day of graduation initiates the doctor's true student life. It is then that his search for knowledge in its practical application begins, and it must be a continuous process or both the doctor and his patients suffer in one way or another".

In this statement the Sub-Committee on Regional Postgraduate Lectures and the Committee on Education heartily concur. They believe that the expenditure of \$2,171.66 of the Association's funds this past year for this essential part of the activities of the Association was a good investment, not only for the medical profession but for the public as well.

EDUCATING THE PUBLIC

The Sub-Committee on Public Health Education is gratified that the expansion program of the State Association, which was endorsed in the committee's report for last year, was subsequently approved by the House of Delegates. The establishment of the Bureau of Public Education was one of the most progressive steps in the history of the Association. Its accomplishments are explained in detail in a separate report, published elsewhere in this issue of *The Journal*. One of the functions of the sub-committee has been to act in an advisory capacity to the director of the Bureau and assist in the preparation of articles on health and medical subjects for lay consumption.

At a meeting of the sub-committee in Columbus, February 4, 1940, a request was considered from the National Youth Administration for cooperation in the formation of a health educational program for approximately 13,000 Ohio youths between the ages of 18 to 25 receiving assistance from NYA. It was the sense of the committee that the Ohio State Medical Association should cooperate with the NYA on this educational program and should make available to it the facilities of the State Headquarters Office.

This recommendation was subsequently approved by the Committee on Education and The Council.

The Sub-Committee on Public Health Education has been actively interested in promoting, in co-operation with other groups, campaigns carried on especially among school children to detect hearing deficiencies and get children with hearing defects into the hands of physicians for prompt and proper medical care. The committee has co-operated with the W.P.A. which has been conducting hearing tests in the schools of the state. Efforts have been made through articles in *The Ohio State Medical Journal*, written by members of the committee and through special bulletins, to arouse the interest of all physicians and county medical societies as organized units in this problem.

Cooperation with Ohio pediatricians in inaugurating an educational campaign for periodic physical examinations of adults coming into contact with children has been offered by the committee. All county medical societies have been requested by The Council to work with the pediatric groups on this matter.

The committee has assisted in assembling a list of physicians qualified to address state-wide or district lay groups on medical and health subjects. This project enables the State Association to fill the many requests which it is receiving for suggested speakers for programs given by lay organizations.

Through the efforts of the committee and the Bureau of Public Education some of the largest radio stations in the state now are carrying the weekly broadcasts, "Medicine in the News", given by the American Medical Association. Material useful for local radio broadcasts by medical societies is being assembled by the committee. After an adequate supply of material has been obtained, it will be made available to local medical societies on request.

SPEAKERS BUREAU HELPS

The Speakers Bureau, which was organized by the Committee on Education in 1936, continues to be most useful to county societies in arranging their scientific programs. Lists of prospective speakers have been furnished to many of the societies during the year.

The committee feels quite definitely that the past year has been one of definite progress in the extension of the educational activity of the State Association. It requests continued cooperation of the membership, and solicits criticisms and suggestions for improvement of its program.

Clyde L. Cummer, M.D., Cleveland, Chairman
S. H. Ashmun, M.D., Dayton
Carl A. Wilzbach, M.D., Cincinnati
Russel G. Means, M.D., Columbus
Harry S. Noble, M.D., St. Marys

Anesthetists Arrange Program on May 16 During O.S.M.A. Annual Meeting

The Ohio Society of Anesthetists will hold a combined meeting with the American Society of Anesthetists at the Hotel Gibson, Cincinnati, Thursday, May 16—the closing day of the Ninety-Fourth Annual Meeting of the Ohio State Medical Association. The following program has been arranged by Dr. A. L. Schwartz, Cincinnati, local chairman:

9 A.M.—Demonstration of the technique of determination of peripheral blood flow by David Abramson, M.D., and the staff of the May Institute for Medical Research of the Jewish Hospital, Cincinnati.

12 Noon—Luncheon at the Hotel Gibson.

1:30 P.M.—Joint Session with the Ohio State Medical Association at the Hotel Netherland Plaza. Address by Ralph M. Waters, M.D., professor of anesthesia, University of Wisconsin Medical School, on "Respiration and the Treatment of Pain".

2:45 P.M.—Combined Meeting of the Ohio Society of Anesthetists and American Society of Anesthetists at the Hotel Gibson; Business Session.

3 P.M.—"Oxygen Want", by Willard Machle, M.D., Kettering Laboratories.

3:35 P.M.—"Effect of Anesthesia on the Peripheral Blood Flow", David Abramson, M.D., May Institute of Medical Research of the Jewish Hospital, Cincinnati.

4 P.M.—"The Relation of the Respiratory Passages to Anesthesia", Samuel Iglauer, M.D., professor of otolaryngology, University of Cincinnati College of Medicine.

4:25 P.M.—"Experiments in Rebreathing", by Harry Landt, M.D., Cincinnati. Discussion will be opened by Julien M. Benjamin, M.D.

6:30 P.M.—Informal Dinner, Hotel Gibson.

8:30 P.M.—Ralph M. Waters, M.D., professor of anesthesia, University of Wisconsin, will address the combined societies on a subject to be announced later.

The attention of the anesthetists of Ohio is called to the Annual Meeting program of the Ohio State Medical Association published in this issue of *The Journal*. A number of papers of great interest to those giving anesthetics will be presented, particularly the round-table conference on anesthesia on Tuesday, May 14.

Officers of the Ohio Society of Anesthetists are Dr. Robert F. Corwin, Dayton, president, and Dr. K. C. McCarthy, Toledo, secretary-treasurer.

In 1900 the population per physician in the United States was 636; in 1938, it was 767.

Report of the Committee on Poor Relief

OVER a period of years one of the most troublesome questions confronting the State Medical Association and its respective component medical societies has been that relating to the administration and financing of medical care programs for indigents and the temporarily unemployed.

The Committee on Poor Relief was created two years ago by The Council of the State Association for the purpose of handling details in connection with medical relief. It has had an active tenure, especially during the past 18 months, and is of the opinion that it has some constructive accomplishments to report to the membership.

Prior to the 1939 session of the Ohio General Assembly, the committee held a series of conferences with representatives of allied and other groups, directly interested in proposed legislation to improve the administration of poor relief in this state. The need for changes in the existing system of providing public relief was apparent. By the time the State Legislature met in January, 1939, the committee had agreed upon the following policies, subsequently approved by The Council: (1) To sponsor legislation which would give medical care a definite status and make it a component part of poor relief generally, and (2) to cooperate with other organizations in supporting improvements in the administration of relief, especially a proposal for centralization of relief administration on a county-wide basis.

NEW STATE RELIEF ACT

Working with the Sub-Committee on Legislation, this committee carried on an active campaign in support of the above principles. After months of controversy, the Legislature before adjourning on June 14, 1939, enacted a new State Relief Act, which was in effect a compromise between those who favored no change in the relief laws and those who requested wholesale revision of the statutes. Although the relief program established by House Bill 675, the new State Relief Act, is not in many respects an ideal arrangement, it is, in the opinion of many closely associated with the relief problem, a definite improvement over the former hodge-podge system which had been in effect for many years.

In the opinion of the Committee on Poor Relief, the new act contains provisions which, if properly applied and administered, will eventually result in distinct improvement in methods of making medical care available to those entitled to assistance at public expense. The following provisions are particularly important so far as medical relief is concerned:

CHIEF PROVISIONS OF ACT

1. "Poor relief" may take the form of "work relief", "direct relief", or "medical care". This

places "medical care" on the same status as other methods of providing those in need with necessities. It means that funds legally available for "poor relief" generally may be used for "medical care".

2. "Medical care" is defined as meaning "medicines and the services, wherever rendered, of a physician or surgeon or the emergency services of a dentist, furnished at public expense". This has been interpreted by officials of the State Welfare Department (the state relief authority), the Attorney General, and the Division of Relief of the State Auditor's Office to mean that "poor relief" funds may be used to compensate physicians for services rendered to relief clients in the physician's office, in the patient's home, in the hospital or elsewhere. In other words the phrase "wherever rendered" means just that.

3. The State Auditor's Office in its interpretation of the act has held that a recipient of relief may receive "work relief", "direct relief", or "medical care" either "separately or collectively", meaning that funds authorized by the act may be used to assist the "medically indigent"—those who can provide some necessities for themselves but who are unable to provide medical care.

4. The act provides that poor relief shall be dispensed on a budgetary basis. This is a new provision in relief legislation in Ohio. Its practical meaning is that in cases where a person's income from all sources, private employment or other forms of public assistance such as aid for dependent children, blind relief, WPA, old age pensions, etc., is not sufficient to provide him and his family with certain necessities, i.e., where a budgetary deficiency exists, that person shall be eligible for poor relief. In other words, poor relief funds may be used to provide supplemental public assistance. This could take the form of medical care if that is the particular necessity accounting for the budgetary deficiency. Obviously, the extent of supplemental assistance provided by local poor relief authorities depends on the adequacy of money available for poor relief.

5. A new plan for administration of relief locally is established, the approach being toward greater centralization of authority and responsibility within a county. Responsibility for administering poor relief is placed on cities and counties. Each county is a relief authority with responsibility for administering relief to those residing outside of a city or cities within the county. Each city is responsible for furnishing poor relief to the needy residing within its limits. Provision is made whereby a centralized relief authority covering a whole county may be created through official agreements entered into by the county and cities within the county.

6. With two exceptions, all relief responsi-

bilities formerly vested in townships have been transferred under House Bill 675 to counties. The exceptions are hospitalization and burial services. Under the new act, township trustees may serve as poor relief agents of a county relief authority but the only financial and administrative responsibilities now vested in townships are to provide hospital facilities and burial services for relief clients residing outside the legal limits of a city. As pointed out in No. 2 above, the responsibility for compensating physicians rendering services to relief clients while in the hospital is vested in the county relief authority (county commissioners) or city relief authority (proper officials of a city).

7. The act provides for state-aid to assist cities and counties in the financing of poor relief. It specifies how much may be distributed by the state each month and provides for reimbursing cities and counties at a certain ratio based on poor relief obligations incurred by local relief areas during a particular month.

8. The State Director of Public Welfare is delegated as the State Relief Administrator with general powers. However, the law does not specify how medical care shall be dispensed to those on relief. This discretion rests with local relief officials and local physicians. It does not establish a schedule of medical fees or methods of compensating physicians. This also is a question for local determination. It places no limit on the amount of "poor relief" funds which may be spent for medical care. This responsibility rests with local relief authorities.

"MODEL" PLAN DRAFTED

Shortly after the new relief plan became effective, the Committee on Poor Relief prepared and transmitted to the secretary of each county medical society a "model" medical relief plan, flexible enough to be adaptable in most cities and counties. It was the belief of the committee that this suggested local plan could be used by county medical societies as a basis for negotiations with local relief authorities. The "model" plan, or one similar, is in operation in a considerable number of counties and cities. The plan is drafted in such a way that it insures medical care for those on relief and protects the interests of physicians rendering such services. One of its strongest points is a provision for a medical advisory committee in each county. Many difficulties can be avoided or solved through such a committee, working with the relief authorities.

On September 28, 1939, the committee sent a questionnaire to all county medical societies asking for information regarding local fee schedules for services to the indigent. The data received was tabulated and supplied to all county societies for purposes of comparison and future negotiations with relief authorities.

From time to time members of the committee and of the State Headquarters Office staff held informal conferences with members of the staff of the State Relief Administrator, the State Auditor and the Attorney General for the purpose of obtaining authentic information for distribution to county medical societies and of offering advice on medical aspects of the State Relief Act. On October 29 the committee held an all-day session discussing questions which had arisen and planning ways by which the committee could assist local medical societies in establishing a workable medical relief program.

That meeting was attended by Carl M. Graves, representative of State Welfare Director Charles L. Sherwood. Mr. Graves was of great assistance to the committee, clarifying some of the provisions of the act and advising the committee as to proper procedure.

OFFER AID TO COUNTY SOCIETIES

At the same meeting, the state was divided into zones. Each member of the committee was assigned to a certain number of counties for the purpose of making himself available to officers and committeemen of those counties for advice and assistance on questions of medical relief. This information was transmitted to the secretary of each county medical society. To date only a few county societies have made use of this voluntary assistance offered by members of the committee. The committee is inclined to believe that failure of many county societies to make use of the services of members of the committee is an indication of disinterest rather than an indication that all but a few counties have solved their medical relief problem.

On February 26, 1940, the committee dispatched another questionnaire to county medical societies seeking information which could be exchanged among the various societies and which would reveal the weaknesses, if any, of the way medical relief is being administered. At the time this report was written, 56 county medical societies had returned the completed questionnaire to the Columbus office.

SOME INTERESTING STATISTICS

The following interesting data was obtained from the 56 replies received:

Thirty-five county medical societies have definite agreements with county commissioners or city officials, or both, whereby physicians are to be paid fees for services rendered under a plan providing free choice of physician.

Thirty-three of the above 35 counties reported that fees are being paid in accordance with the agreement.

In 32 counties fees are being paid physicians

for medical and surgical services rendered to patients being hospitalized, in addition to home and office visits.

Seven counties reported that medical care is being handled on a contract basis, through contracts held by individual physicians or under an agreement providing for lump sum payments to the county medical society.

Seven counties reported that although they have no definite agreement with relief authorities, fees are being paid to physicians on a case basis.

Seven counties reported that no provision has been made for paying physicians for services to the indigents.

Answers to the question: "Are adequate funds being set aside for medical care?", totaled as follows: Yes, 27; no, 24; indefinite, 5. Some of those answering in the affirmative qualified their answers by pointing out the program had been in effect too short a time to know definitely; that funds are adequate for the program set up but the program itself is too restricted and inadequate; that city funds are adequate and county funds inadequate, or vice versa; and that funds are adequate only because the services are handled on a contract or salary basis. A few of the counties which indicated physicians are being paid, qualified their replies by stating the fees are too small, that payments are not made promptly, or that payments are uncertain.

FINANCING THE BIG PROBLEM

After analyzing data received from county medical societies and information obtained from other sources, the committee recognizes that the question of adequately financing medical relief is one of the difficult problems confronting a considerable number of communities. We believe the problem can be met in most cities and counties if proper methods are employed. Here are several aspects which should be kept in mind:

First—Financing of poor relief generally, not just medical care, presents many difficult problems for the state and local sub-divisions. Some communities claim that for one reason or another, they are unable to make available adequate funds for all kinds of relief—including medical care. In 10 or a dozen of the large industrial, urban centers of the state the problem is, to be sure, somewhat acute. In some instances local sources of funds for relief are about exhausted. In order to keep from incurring a deficit the state has placed a limit on its contribution to local communities. This combination has made financing of relief difficult in a few areas of the state. The State Administration and leaders in the Legislature are watching the situation and from time to time have been offering assistance to hard-pressed communities, pointing out how additional

funds may be raised under the present relief law and subsidiary measures. They are opposed to a special session of the Legislature for the purpose of increasing the amount of state aid unless the situation becomes more acute than it is now, contending that additional money can not be appropriated unless present taxes are increased or new taxes levied. Thus, it becomes obvious that the financing of medical relief constitutes but one phase of the whole question of finding adequate funds to finance a complete program of poor relief.

Second—A paradoxical situation has developed in some communities where, on one hand, overburdened taxpayers refuse to vote special levies for relief activities and, on the other, officials contend that relief funds are not adequate. Either such officials are wrong or the community is failing to meet its responsibility.

Third—A number of communities are failing to meet their local responsibilities with respect to the financing of relief. It has become a habit in some places to let the state foot the relief bill. The State Legislature in 1939 in effect said that this attitude will not be tolerated any longer. It enacted legislation which provides that local communities must do their part in order to be eligible for state-aid. Several laws to enable local communities to raise relief funds were enacted. Some communities have not taken advantage of these enabling acts, including some cities and counties who are protesting that they have no funds for poor relief. There is reason to believe that a fairly adequate relief program, including medical relief, could be operated in all cities and counties if relief administrators and county medical societies will make a real effort to work out a mutually satisfactory agreement and local sources of funds which can be used for relief are tapped. However, it must be admitted that it is problematical how long some of the largest urban communities of the state will be able to meet their relief problems without additional state-aid or legislation providing ways for communities to raise additional revenue locally.

Fourth—Answers given by some local relief authorities to representatives of medical societies to the effect that "no funds are available for medical care", are in conflict with the relief act which provides that any funds available for "poor relief" generally may be spent for "medical care". From a practical point of view, every relief area can make available some money for medical care if the county commissioners and city authorities desire to do so. In some instances, the medical program may have to be curtailed to meet the funds but it can still be broad enough to provide necessary services. Because there is considerable uncertainty as to how much money will be available from month to month, some re-

lief authorities naturally want to keep their commitments at a minimum. Lack of accurate statistics on medical needs from month to month also complicates the situation. In some cases where relief authorities are trying to minimize relief costs, they unfortunately have lost sight of the fact that medical care is an essential element in a relief program and that funds must be set aside for necessary medical services. Because the medical profession for many years carried the charity load almost entirely, some communities have not as yet begun to realize that the care of the sick poor has become a public responsibility due to the tremendous increase in the number of needy and unemployed during the past seven or eight years.

WHAT COUNTY SOCIETIES CAN DO

The question, "What can we do to make our relief authorities establish a satisfactory medical relief program?", has been asked by the medical profession in some counties. It is not a simple matter to answer this inquiry. A great deal depends on local conditions; the attitude of the personnel administering relief; and the character of the county medical society. To get any place, the profession in any county must work through the county medical society. Individual effort will not be successful. The county medical society must have a proper negotiating committee, know what it wants, press its case energetically, solicit public support for its requests, use its influence in a strategic manner, arm itself with facts to prove its points, and be able to show relief authorities and the public that a workable medical care program for the poor is essential. The united support of the membership of the society must be given to the negotiations. Discord among members will ruin whatever efforts are put forth. A reasonable attitude must be taken by the society which should realize that relief funds may be scarce and that the medical program may have to be cut to the financial pattern.

The whole matter boils down to one primarily of local responsibility and local initiative. This is as it should be. Centralization of responsibility, administration and dictation at Columbus should be avoided. That lesson was learned some years ago under the old FERA medical relief program.

RELIEF DISCUSSION AT ANNUAL MEETING

In conclusion, the committee would like to extend a cordial invitation to all members to attend a General Session to be held on Thursday afternoon, May 16, 4 to 5 o'clock during the 1940 Annual Meeting of the State Association at Cincinnati, when there will be a general discussion of medical programs for those receiving public assistance. The program for that meeting is being arranged by the Committee on Poor Relief at the request of The Council. The committee

promises some interesting and informative discussions.

Walter K. Stewart, M.D., Youngstown,
Chairman,

Fowler B. Roberts, M.D., Akron,
F. S. Van Dyke, M.D., Canton,
W. L. Denny, M.D., Cambridge,
R. N. Whitehead, M.D., Bowling Green,
E. O. Swartz, M.D., Cincinnati,
Dow Allard, M.D., Portsmouth,
E. B. Gillette, M.D., Toledo,
R. S. Binkley, M.D., Dayton,
F. C. Callaway, M.D., Marysville.

Are you prepared to tell your luncheon club, P.T.A., or similar organizations, how the medical profession feels about current proposals to change the present system of medical practice? A "model" 30-minute talk and topical outline on this subject will be on your desk by return mail, if you send a request to the Bureau of Public Education, State Headquarters Office, Columbus.

College of Surgeons Plan Sectional Meeting at Detroit, Ann Arbor

A Sectional Meeting of the American College of Surgeons will be held in Detroit and Ann Arbor, Mich., Monday, Tuesday and Wednesday, April 1-3. Fellows of the section, comprising Michigan, Ohio, Indiana, Wisconsin and Illinois, are to meet at the Hotel Statler, Detroit, April 1 and 2, and in Ann Arbor, April 3. A full program of clinics, scientific addresses and panel discussions has been arranged. Participants in the program include the following Ohioans: Dr. Arthur H. Bill, Dr. A. D. Ruedemann, Dr. Russell L. Haden, Dr. Robert S. Dinsmore, Dr. Thomas E. Jones and Dr. Charles C. Higgins, Cleveland; Dr. John A. Caldwell and Dr. Joseph A. Freiberg, Cincinnati; Dr. Carl R. Steinke, Akron; Dr. Elmer R. Arn, Dayton; and Dr. Walter W. Brand, Toledo. Officers of the Ohio State Executive Committee of the College are: Dr. Arn, chairman; Dr. Steinke, secretary, and Dr. Fred M. Douglass, Toledo, counselor.

All members of the Ohio State Medical Association are invited to attend the sectional meeting. There will be no registration charge. Further information can be obtained by writing Dr. Grover C. Penberthy, 1515 David Whitney Bldg., Detroit, chairman, Committee on Arrangements.

Annual Report of the Bureau of Public Education

SINCE June 15, 1939, the Bureau of Public Education, which was authorized by the House of Delegates at the 1939 Annual Meeting, has been functioning as part of the Headquarters Office of the State Association. It has been engaged in inaugurating a program of public relations for the organized medical profession in Ohio. The purpose of this program is to provide the people of Ohio with dependable information about their physicians, advances in scientific medicine, preventive medicine and personal hygiene, and the stand of the profession on major social and political issues related to the field of health.

As a liaison agency between the profession and the public, the Bureau works through the various information-spreading channels: the lay press, the radio, the speaker platform, and the exhibit hall. To date it has made initial trials in all those fields. It aims also to be in constant readiness to take advantage of whatever unusual possibilities to serve the public and the profession may be presented. For this reason it is not restricted to a rigid routine of activities but endeavors to be adaptable to circumstances as they arise.

Newspaper Releases—Most notable among the tangible results of the Bureau's early efforts has been the response from the newspapers. Stories prepared by the Bureau have appeared in approximately 350 of Ohio's 425 daily and weekly papers, representing all but a few of the 88 counties in the state. The combined circulation of these papers equals more than the total population of the state. Especially gratifying has been the fact that much of the material provided to the newspapers has been printed verbatim as prepared by the Bureau, thus avoiding the dangerous inaccuracy that sometimes creeps in through revision.

The releases sent out from the Bureau may be placed in two distinct classifications: those in the field of health education, and those dealing with activities of medical organizations and their policies in problems of medical economics. In the former group, stories on the following topics were prepared either as general statewide releases or as special releases to one or several papers: Goiter Prevention, Dangers of Self Medication, Appendicitis, Carbon Monoxide (2), Tularemia, Scarlet Fever, Trichinosis, Common Cold, Cancer, and the Hard of Hearing Problem.

A number of these stories were based on scientific papers in *The Journal* which were of public interest, while others were presented as statements from the Sub-Committee on Public Health Education. No stories of scientific nature were issued from the Bureau until approved by physicians.

Must Have News Basis—Releases pertaining to medical organizations or medical economics included the following: State Association committee appointments, State Association exhibit at the State Fair, Regional Postgraduate Lectures (different for the papers in each region), follow-up reminders on the postgraduate lectures, the Fifth District address of Dr. Parke G. Smith, the President, on "Foreign Medical Systems," Dr. Morris Fishbein's address at Cambridge on "Medicine in a Changing Social Order," the State Association's study of medical service plans, results of the Survey on Medical Care in Ohio, talks by members of the staff of the Headquarters Office before county medical societies and lay groups, speeches by Dr. Smith on "Present Trends in Organized Medicine" to members of the Ninth District and the Van Wert County Medical Society, and addresses made by Dr. Jonathan Forman, Editor of *The Journal*.

Frequently the "peg" on which a story of this type has been "hung" was the address of an official of the State Association before a professional or lay group. In these instances the director of the Bureau collaborated closely in preparation of the talks and thus was in a position to frame news releases about them which put the sense of the remarks and the salient points before the reading public. This technique proved eminently satisfactory because the material given the press was accurate and authoritative, and the fact that an official of medical organization in the state was quoted justified its publication. Newspapers want news and will print news articles. Most of them detest propaganda. This is a point which should be kept in mind in preparing press releases.

Most Popular Articles—At this writing there have been 5,911 individual pieces mailed from the Bureau of Public Education to Ohio newspapers. On several occasions the circulation of these releases was considerably increased because they were transmitted on the wires of the press associations. Particularly in the cases of the stories on the survey of medical care facilities, the formation of the Committee on Medical Service Plans, and the warnings about tularemia and carbon monoxide, officials of the Associated Press, United Press, and International News Service thought they warranted being carried on the wires to newspapers throughout the state.

One of the newsworthy events in which the State Association figures each year is the Annual Meeting. The Bureau has outlined a schedule for advance publicity on the 1940 sessions and will arrange for facilities to promote efficiency in dealings with both the press and radio stations during the meeting.

Other informative articles have been prepared by the Bureau which, although they were not intended for the newspapers, still are an important item in public educational work. These are the stories which were written for publication in the journals of trade and professional organizations, service groups, etc. An example of these is the brief statement regarding compulsory health insurance which was prepared at the request of one physician who wanted it for his club bulletin and later was circulated to all county societies for use in any lay publications interested in it.

Augmenting the actual distribution of material to the newspapers, efforts have been made to contact editors personally, advise them that the Bureau has been established to serve them, and urge them to call on it for reliable facts about medicine and the profession. To this end, the director has visited newspaper offices in several sections of the state, and he maintains personal contact with correspondents of the press association bureaus in Columbus. Members of county medical societies have been asked to visit editors of their local papers and advise them of the new public relations program and the facilities of the Bureau. Local contacts of this sort are found to be of far greater value than communications from Columbus.

Speaker List Compiled—Since individual physicians are best able to reach the public mind from the speaker's platform, this particular medium of public relations has received considerable attention. The Bureau is compiling a Speaker List upon which will be placed the names of physicians in all parts of the state who are qualified to address groups of laymen on medical and health topics. This list is not intended to duplicate the speakers' bureaus maintained by local medical societies but rather to supplement them. From it, speakers for statewide or district meetings will be selected. It will also be used to answer local requests which cannot be filled by the county medical society. Names of the speakers and their subjects are filed, indexed, and cross-indexed in the Bureau office so that requests may be answered to best advantage.

Although this particular facility of the Bureau is still in formative stages, it is anticipated that it will become one of the most widely used. In the immediate future a personal letter will be sent to officers of several hundred state organizations to inform them that this Speaker List has been established to aid them in planning meeting programs.

Material Available—In conjunction with the speaker service the Bureau maintains subject files of literature in lay terminology on 65 topics of common interest. Most of this filed material consists of reprints from magazines, clippings,

survey reports, vital statistics bulletins, pamphlets, and similar items from authoritative sources. Subjects range from "Accidents and Their Prevention" to "Venereal Diseases" or "War Medicine." Other examples are: "Common Cold," "Personal Hygiene," "State Medicine," "Medical History," and "Diabetes." This material is sent to both physicians and laymen on a loan packet basis and is designed to be of assistance in preparing talks, theses, or papers. A number of requests from students writing term reports in high school or college classes have been filled from the subject files.

Approximately 50 per cent of the requests for material on state medicine come from physicians in all parts of the state who have been asked to give talks on this timely subject. Many of these men indicated they have insufficient time to devote to the task in order to do it well. Therefore, the Bureau has recently drafted a "model" talk on the subject, "The Health of America's Millions," which covers the entire field of public health and the profession's attitude on contemporary issues. This talk has been mimeographed, and copies of it are available to any member who requests it. It requires approximately 30 minutes for delivery, and the individual physician can lengthen it or shorten it to meet his needs. An outline of the talk is also available to those who prefer to speak from condensed notes.

If this initial attempt at the preparation of a "model" talk meets with success, it is planned to follow it with other talks on timely subjects which may warrant it.

Poster Distributed—Among the major single projects of the Bureau during its first 10 months was the preparation and distribution of a poster which pictorialized opposition to the political control of medicine. This poster, after approval of it by the Committee on Public Relations and Economics and The Council, was mailed to all members of the State Association shortly after January 1, and each physician was requested to display it in his reception room. Its purpose was primarily to serve as a device with which the doctor could call his patients' attention to some of the dangers facing medicine today and to explain to them that enactment of proposed changes in the form of medical practice would be detrimental to the public as well as to the profession. This poster was mailed to all other state medical association offices, to the American Medical Association, and to a number of interested institutions in Ohio. It has provoked considerable comment, both in Ohio and elsewhere.

State Fair Exhibit—Shortly after the Bureau was inaugurated, work was begun on an exhibit for the 1939 Ohio State Fair, which was held in Columbus, August 26 through September 1.

This exhibit was staged in cooperation with the State Department of Health, the Ohio State Dental Society, and the Women's Field Army Against Cancer. It consisted chiefly of a series of large colored posters on health and medical care in Ohio, a lighted showcase of old and new physicians' instruments, and mechanical devices, obtained from the A.M.A., pointing out the dangers of self-medication and the need for periodic health examinations. Approximately 250,000 visitors came to this "hall of health".

Lack of time and experience made it difficult to exhibit on a large scale at the 1939 Fair. However, plans are already under way for the 1940 Fair, and, if nothing arises to prevent it, the Bureau will be represented by a much improved exhibit this year.

Radio Programs—In the field of radio there are limits to what can be done on a statewide basis from the office in Columbus. Since there is no Ohio network of stations, the Bureau can best utilize radio facilities by collaborating with county society officers in preparing programs for local stations. It can also supply county societies with scripts for 15-minute interviews or talks if specific requests are made, but as yet no supply of stock scripts or series of programs is available. It is believed inadvisable to prepare "canned" continuity in the field of health education, at least for this Bureau, because physicians appearing on local programs usually prefer to write their own. Here the Bureau can best serve by making its facilities and material available.

Several programs of the interview or forum type have originated in the Bureau or been planned in collaboration with it. For example, on January 26 an interview between Dr. Smith, President of the State Association, and a fieldman for the Federal Agricultural Adjustment Administration in Ohio, discussing the importance of health to the farmer, was broadcast over WLW, Cincinnati. This dialogue, written in conversational style, proved to be very popular among listeners.

The Bureau contacted all NBC Blue Network stations in Ohio, urging them to carry "Medicine in the News," weekly dramatized program of the A.M.A. which is a feature of optional choice with local station executives. Believing this program to be one of the best in the field of health education, the Bureau promoted it vigorously. It is now being broadcast regularly in the five Ohio cities in which it is available.

Personal Contacts Essential—Activities of the Bureau described thus far in the report might be classified as its tangibles. The intangibles which have been carried on at the same time are of equal importance.

Personal contacts in Columbus and other cities are both necessary and valuable in the program

of public relations. The director of the Bureau has been developing acquaintance among kindred organizations and many of the state government offices. The exchange of ideas and the opportunity to be of service to the medical profession which come from this particular intangible are of immeasurable value.

Has Been Pioneering—It may be said that for these first 10 months the Bureau of Public Education has been pioneering in a field in which there is little previous experience to guide it. Instead of attempting a large-scale exhaustive campaign which would produce results of one kind or another through sheer impact, the Bureau has proceeded cautiously, step by step, attempting to evaluate its efforts as it progressed.

The ultimate success of the Bureau of Public Education will be measured in direct proportion to the amount of cooperation it receives from individual physicians and county medical societies. The Bureau depends on this local cooperation for virtually all the work that is done. It has been created to help the profession, but members of the profession must also be ready to help it, or it will not achieve its purposes. The chief reason for this is that the population of any given community is far more effectively impressed by statements from its own medical profession than from some centralized agency in the state capital. In a word, then, it may be said that one of the chief purposes of the Bureau is to supply the "ammunition" which the physicians of the state and their local county societies can use to fight the profession's battles.

Cooperation Excellent—The results achieved during these initial 10 months would certainly have been impossible if the Bureau had not enjoyed the wholehearted and enthusiastic support of the officers, members of The Council, members of the Committees on Public Relations and on Medical Service Plans and the Sub-Committee on Public Health Education; Dr. Forman, editor of *The Journal*; and members of the Headquarters Office staff. The cooperation of all these and other members of the Ohio State Medical Association who have worked with the Bureau made possible what degree of success has been achieved.

Prospects for the balance of 1940 indicate that the Bureau of Public Education will be able to perform increasing services to both the public and the medical profession by continued dissemination of facts about medical science and the profession's efforts on behalf of its patients. In this age of the importance of public relations it seems quite logical that no other group should be more concerned than the medical profession about its relations with the public, with whom it works so intimately and directly.

RICHARD A. ASZLING, Director,
Bureau of Public Education.

Ninety-Fourth Annual Meeting

OHIO STATE MEDICAL ASSOCIATION

Netherland Plaza Hotel, Cincinnati, Ohio

Tuesday, Wednesday, and Thursday

May 14, 15, and 16, 1940

SUMMARY OF PROGRAM . . .

Tuesday, May 14

- 9:00 A.M. OPENING OF REGISTRATION
HEADQUARTERS.
Fourth Floor Foyer.
FORMAL OPENING OF EDUCATIONAL AND
TECHNICAL EXHIBITS.
North and South Exhibits Halls and Parlors J and L,
Fourth Floor.
- 1:00 P.M. HOUSE OF DELEGATES.
Pavillon Caprice, Fourth Floor.
Annual Address of the President and Business Session.
- 2:30 P.M. TEN ROUND-TABLE CONFERENCES.
Parlors D, E, F, G, H, I, Fourth Floor;
Rooms 602, 622, Sixth Floor; and
Rooms 702, 722, Seventh Floor.
- 4:00 P.M. GENERAL SESSION.
Pavillon Caprice, Fourth Floor.
Conference on Medical Service Plans.
Address: J. A. Hannah, M.D., Managing Director,
Associated Medical Services Inc., Toronto, Canada.
Round-Table Discussion.
- 8:00 P.M. GENERAL SESSION.
Hall of Mirrors, Fourth Floor.
Richard B. Cattell, M.D., Boston, Mass.; and W. Osler
Abbott, M.D., Philadelphia, Pa.

Wednesday, May 15

- 9:30 A.M. SESSIONS OF THREE SCIENTIFIC SECTIONS:
SECTION ON SURGERY
Hall of Mirrors, Fourth Floor.
SECTION ON PEDIATRICS,
Pavillon Caprice, Fourth Floor.
SECTION ON EYE, EAR, NOSE AND THROAT,
Parlors A, B, C, D, Fourth Floor.

- 10:00 A.M. WOMAN'S AUXILIARY TO THE OHIO STATE MEDICAL ASSOCIATION. Organization Meeting. Della Robbia Room, Mezzanine Floor, Hotel Gibson.
- 12:00 Noon HOUSE OF DELEGATES LUNCHEON AND FINAL SESSION.
Pavillon Caprice, Fourth Floor.
- PUBLIC HEALTH ROUND-TABLE LUNCHEON.
Hall of Mirrors Foyer, Third Floor.
Under auspices of Section on Public Health and Preventive Medicine. Speakers: Harold J. Knapp, M.D., Health Commissioner, Cleveland; E. P. Edwards, M.D., Cleveland; and Mrs. Hazel McIntire, State Department of Education.
- SPECIAL LUNCHEONS ARRANGED BY SECTIONS AND SPECIAL SOCIETIES.
- 1:30 P.M. WOMAN'S AUXILIARY TO THE OHIO STATE MEDICAL ASSOCIATION.
Della Robbia Room, Mezzanine Floor, Hotel Gibson.
- 2:30 P.M. GENERAL SESSION.
Hall of Mirrors, Fourth Floor.
E. J. Wenaas, M.D., Youngstown; Raymond A. Ramsey, M.D., Columbus; M. A. Blankenhorn, M.D., Cincinnati; and Sidney E. Wolpaw, M.D., Cleveland.
- 8:00 P.M. GENERAL SESSION.
Hall of Mirrors, Fourth Floor.
C. Guy Lane, M.D., Boston, Mass.; and Ralph R. Mellon, M.D., Pittsburgh, Pa.

Thursday, May 16

- 9:30 A.M. SESSIONS OF THREE SCIENTIFIC SECTIONS:
SECTION ON MEDICINE,
Hall of Mirrors, Fourth Floor.
SECTION ON OBSTETRICS AND GYNECOLOGY,
Pavillon Caprice, Fourth Floor.
SECTION ON NERVOUS AND MENTAL DISEASES,
Parlors A, B, C, D, Fourth Floor.
- 12:00 Noon SPECIAL LUNCHEONS ARRANGED BY SECTIONS AND SPECIAL SOCIETIES.
- 1:30 P.M. GENERAL SESSION.
Hall of Mirrors, Fourth Floor.
Ralph M. Waters, M.D., Madison, Wis.
- 2:30 P.M. TEN ROUND-TABLE CONFERENCES.
Parlors D, E, F, G, H, I, Fourth Floor;
Rooms 602, 622, Sixth Floor; and
Rooms 702, 722, Seventh Floor.
- 4:00 P.M. GENERAL SESSION.
Pavillon Caprice, Fourth Floor.
Conference on Medical Programs for Recipients of Public

Assistance. Program Sponsored by Committee on Poor Relief.
 Address: Hon. Charles L. Sherwood, State Director of
 Public Welfare, Columbus.
 Round-Table Discussion.

7:30 P.M. ANNUAL BANQUET.

Hall of Mirrors, Fourth Floor.

Academy of Medicine of Cincinnati, host.

1. Presentation of Past-President's Gavel and Introduction of Incoming President and President-Elect.
2. Address by United States Senator Robert A. Taft, Cincinnati.

HOUSE OF DELEGATES . . .

OPENING SESSION

Tuesday Afternoon, May 14

1:00 o'clock

Meeting Place—Pavillon Caprice, Fourth Floor

Presentation of the President of the Ohio State Medical Association by
 E. O. Swartz, M.D., President, Academy of Medicine
 of Cincinnati.

In the chair, PARKE G. SMITH, M.D., *Cincinnati*, President,
 Ohio State Medical Association

1. Call to Order by the President
2. Roll Call.
3. Consideration of the Minutes of last Annual Meeting. (June, 1939, issue, *The Journal*.)
4. Annual Address of the President.
5. Appointment of Reference Committees by the President:
 - (a) Committee on Presidential Address.
 - (b) Committee on Resolutions.
 - (c) Committee on Annual Reports.
 - (d) Committee on Credentials of Delegates.
 - (e) Committee on Tellers and Judges of Election.
 - (f) Committee on Time and Place of 1941 Annual Meeting.
6. Reports of Standing Committees and of Special Committees:

(Reports submitted by title only as published in full in the April, 1940, issue, *The Journal*.)

 - (a) Public Relations and Economics—D. B. Lowe, M.D., Akron, Chairman.
 - (b) Education—C. L. Cummer, M.D., Cleveland, Chairman.
 - (c) Judicial and Professional Relations—L. L. Bigelow, M.D., Columbus, Chairman.
 - (d) Auditing and Appropriations—C. C. Sherburne, M.D., Columbus, Chairman; James A. Beer, M.D., Columbus, Treasurer.
 - (e) Poor Relief—W. K. Stewart, M.D., Youngstown, Chairman.
 - (f) Bureau of Public Education.

7. Nomination and Election of Committee on Nominations:

(Nominations from the floor with one representative from each Councilor District. This committee shall report to the second session, Wednesday, 1:00 P.M., its recommendations in the form of a ticket, containing nominees for constitutional offices as required under the Constitution and By-Laws.)

8. Introduction of Resolutions:

(Resolutions must be introduced at this session of the House of Delegates, referred to the Reference Committee on Resolutions and reported back to the House of Delegates at the Wednesday afternoon session before any action can be taken. All resolutions must be typewritten and submitted in duplicate.)

9. Submission of Invitations for next Annual Meeting:

(It is necessary that invitations for the 1941 Annual Meeting be referred to the Reference Committee on Time and Place of Annual Meeting.)

10. Miscellaneous Business.

11. Recess.

SECOND AND FINAL SESSION

Wednesday Noon, May 15

12:00 o'clock

Meeting Place—Pavillon Caprice, Fourth Floor

Complimentary Luncheon for Delegates and Officers.

Final Business Session:

1. Roll Call.
2. Consideration of unfinished business from Tuesday's session of the House of Delegates.
3. Reports of Reference Committees:
 - (a) Committee on Time and Place of 1941 Annual Meeting.
 - (b) Committee on Presidential Address.
 - (c) Committee on Annual Reports.
 - (d) Committee on Resolutions.
4. Miscellaneous Business.
5. Election of President-Elect. Nominations from the floor.
6. Report of Committee on Nominations:

(a) Election of Members of The Council.

(Members of The Council are elected for two-year terms, terms of those representing odd numbered districts expiring in even numbered years.)

To be elected:

Councilor, First District—(Incumbent, L. Howard Schriver, M.D., Cincinnati.)

Councilor, Third District—(Incumbent, O. P. Klotz, M.D., Findlay.)

Councilor, Fifth District—(Incumbent, Edgar P. McNamee, M.D., Cleveland.)

Councilor, Seventh District—(Incumbent, Carl Goehring, M.D., Steubenville.)

Councilor, Ninth District—(Incumbent, I. P. Seiler, M.D., Piketon.)

Councilor, Eleventh District—(Incumbent, S. V. Burley, M.D., Lorain.)

(b) Election of Delegates and Alternates to the American Medical Association for term of two years.

Those whose terms expire at this time are:

Carl R. Steinke, M.D., Akron.

C. C. Sherburne, M.D., Columbus. (Alternate.)

Ben R. McClellan, M.D., Xenia.

D. W. Hogue, M.D., Springfield. (Alternate.)

E. R. Brush, M.D., Zanesville.

V. N. Marsh, M.D., Painesville. (Alternate.)

Charles W. Stone, M.D., Cleveland. (Deceased.)

John B. Alcorn, M.D., Columbus. (Alternate.)

(c) Election of the Treasurer. (Three-year term.)

(Incumbent, James A. Beer, M.D., Columbus.)

7. Installation of Officers for 1940-1941.

8. Submission of committee appointments by new President for confirmation by House of Delegates.

9. Unfinished Business.

10. Adjournment.

DELEGATES AND ALTERNATES . . .

<i>Counties</i>	<i>Delegates</i>	<i>Alternates</i>
ADAMS	A. R. Carrigan	Otto K. Engelke
ALLEN	J. W. Halfhill	F. G. Maurer
ASHLAND	M. D. Shilling	Paul E. Kellogg
ASHTABULA	R. B. Wynkoop	J. F. Docherty
ATHENS	B. R. Goldsberry	John R. Sprague
AUGLAIZE	Guy E. Noble	George B. Faulder
BELMONT	Harry G. Harris	W. Miles Garrison
BROWN	Geo. P. Tyler, Jr.	R. B. Hannah
BUTLER	Chas. T. Atkinson	Walter H. Roehll
CARROLL	Carl A. Lincke	Samuel L. Weir
CHAMPAIGN	D. C. Houser	L. A. Woodburn
CLARK	C. E. M. Finney	T. Victor Kolb
CLERMONT	John A. Carter	J. M. Coleman
CLINTON	Robert Conard	Glenn K. Dennis
COLUMBIANA	Paul H. Beaver	John A. Fraser
COSHOCTON	J. G. Smailes	Floyd W. Craig
CRAWFORD	K. H. Barth	Chas. J. Griebeling
CUYAHOGA	E. F. Kieger	G. F. Sykes
	Milton B. Cohen	B. B. Larsen
	Ralph M. Watkins	E. A. Marshall
	Donald M. Glover	C. H. Heyman
	Louis M. Starin	L. Burdette Wylie
	M. F. Oman	Claude D. Waltz
	David A. Chambers	M. Paul Motto
	Russell L. Haden	R. J. Frackelton
	E. J. Stefanic	Paul G. Moore
	Theo. M. Wille	J. L. Reycraft
	Farrell T. Gallagher	I. H. Einsel
	Walter Engel	C. E. Kinney
DARKE	C. I. Stephen	Paul G. Lenhert
DEFIANCE	D. J. Slosser	Paul B. Newcomb
DELAWARE	M. W. Davies	W. E. Borden

<i>Counties</i>	<i>Delegates</i>	<i>Alternates</i>
ERIE.....	Ross M. Knoble	H. L. Sowash
FAIRFIELD.....	Ralph H. Smith	C. H. Hamilton
FAYETTE.....	J. H. Persinger	L. L. Brock
FRANKLIN.....	Leslie L. Bigelow	John E. Brown, Jr.
	John M. Thomas	Robin C. Obetz
	Geo. T. Harding	Link M. Murphy
	E. J. Emerick	Harry E. LeFever
	I. B. Harris	John H. Mitchell
FULTON.....	C. F. Murbach	C. Harold Heffron
GALLIA.....	W. Lewis Brown	S. L. Bossard
GEAUGA.....		
GREENE.....	H. C. Messenger	C. G. McPherson
GUERNSEY.....	M. S. Lawrence	M. C. McCuskey
HAMILTON.....	Ralph Carothers	Joseph N. Ganim
	Otto J. Seibert	Daniel C. Rivers
	E. O. Swartz	Irving H. Schroth
	Henry B. Freiberg	Lloyd B. Johnston
	Howard D. Fabing	Ralph W. Eddy
	Emil R. Sweptson	Richard D. Bryant
	Wm. J. Topmoeller	Daniel E. Earley
	Max M. Zinninger	David W. Heusinkveld
HANCOCK.....	Frank M. Wiseley	J. H. Marshall
HARDIN.....	Raymond G. Schutte	Don R. Printz
HARRISON.....	James A. L. Toland	Gerald E. Vorhies
HENRY.....	J. J. Harrison	T. P. Delventhal
HIGHLAND.....	H. W. Chaney	J. H. Frame
HOCKING.....	C. T. Grattidge	A. K. Smith
HOLMES.....		
HURON.....	J. D. Bradish	H. A. Erlenbach
JACKSON.....	J. S. Hunter	J. J. McClung
JEFFERSON.....	S. J. Podlewski	John P. Smarella
KNOX.....	F. C. Anderson	James F. Lee
LAKE.....	V. N. Marsh	
LAWRENCE.....	Geo. G. Hunter	Ralph F. Massie
LICKING.....	George A. Gressle	Geo. W. Sapp
LOGAN.....	F. Blair Webster	John K. Humphries
LORAIN.....	Charles R. Meek	Robert A. Stack
	Geo. D. Nicholas	A. S. McKittrick
LUCAS.....	E. B. Gillette	R. C. Young
	A. A. Brindley	Karl D. Figley
	T. H. Brown	F. N. Nagel
	E. G. Galbraith	L. D. Miller
MADISON.....	W. A. Holman	R. W. E. Irwin
MAHONING.....	Walter K. Stewart	W. H. Evans
	Dean A. Nesbit	E. J. Reilly
	Gordon G. Nelson	Ivan C. Smith
MARION.....		
MEDINA.....	H. T. Pease	H. G. Lehrner
MEIGS.....	Byron Bing	M. S. Daniels
MERCER.....	Charles C. Henrie	Raymond B. Benning
MIAMI.....	G. A. Woodhouse	E. G. Puterbaugh
MONROE.....	A. R. Burkhart	
MONTGOMERY.....	A. W. Carley	E. M. Smith
	P. L. Yordy	M. R. Haley
	C. J. Derby	T. K. Kirk

<i>Counties</i>	<i>Delegates</i>	<i>Alternates</i>
MORGAN.....	E. Galen Rex	C. E. Northrup
MORROW.....	Wm. Lowell Murphy	J. P. Ingmire
MUSKINGUM.....	M. A. Loebell	Clarence F. Sisk
NOBLE.....		
OTTAWA.....	Frank E. Miller	Carl J. Yeisley
PAULDING.....	K. C. Evans	Fred E. Spragens
PERRY.....	James Miller	Edgar D. Allen
PICKAWAY.....	Harry D. Jackson	A. D. Blackburn
PIKE.....	Robert T. Leever	Robert M. Andre
PORTAGE.....	Elizabeth A. Leggett	Emily J. Widdecombe
PREBLE.....	G. W. Flory	J. I. Nisbet
PUTNAM.....	J. R. Echelbarger	W. D. Hickey
RICHLAND.....	John S. Hattery	L. C. Nigh
ROSS.....	O. P. Tatman	Richard L. Counts
SANDUSKY.....	C. J. Wolf	J. L. Curtin
SCIOTO.....	Dow Allard	W. E. Scaggs
SENECA.....	R. R. Hendershott	Paul J. Leahy
SHELBY.....	R. E. Paul	Lloyd F. Zacharias
STARK.....	John M. Van Dyke	H. W. Beck
	George N. Wenger	Verl Z. Garster
	A. R. Basinger	R. C. Manchester
SUMMIT.....	Robt. T. Allison, Jr.	A. E. Davis
	H. H. Musser	T. L. Bliss
	A. P. Ormond	C. E. Myers
	Fowler B. Roberts	H. V. Sharp
TRUMBULL.....	R. D. Herlinger	J. D. Knox
TUSCARAWAS.....	J. W. Calhoon	Burrell Russell
UNION.....	Harry G. Southard	John Dean Boylan
VAN WERT.....	J. R. Jarvis	O. E. Cress
VINTON.....	B. F. Wills	H. D. Chamberlain
WARREN.....	N. A. Hamilton	A. E. Stout
WASHINGTON.....	Roy M. Meredith	Geo. E. Huston
WAYNE.....	R. C. Paul	L. A. Adair
WILLIAMS.....	H. W. Wertz	Edwin R. Jacka
WOOD.....	Paul F. Orr	James R. Janney
WYANDOT.....	J. Craig Bowman	Frederick M. Kenan

ANNUAL BANQUET . . .

Thursday Evening, May 16

7:30 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

WM. M. DOUGHTY, M.D., *Cincinnati*, Toastmaster.

1. Introduction of Incoming President, Wm. M. Skipp, M.D., Youngstown, and the new President-Elect.
2. Presentation of Past-President's Gavel to Retiring President—Barney J. Hein, M.D., Toledo, to Parke G. Smith, M.D., Cincinnati.
3. Address by United States Senator Robert A. Taft, Cincinnati.

GENERAL SESSIONS . . .

Tuesday Afternoon, May 14

4:00 o'clock

Meeting Place—Pavillon Caprice, Fourth Floor

DAVID A. TUCKER, JR., M.D., *Cincinnati*, Chairman, Committee on Medical Service Plans, presiding.

CONFERENCE ON MEDICAL SERVICE PLANS

Address: J. A. HANNAH, M.D., *Toronto, Canada*.

Managing Director, Associated Medical Services Inc., Toronto, Canada.

Round-Table Discussion.

Adjournment for Inspection of Exhibits.

Tuesday Evening, May 14

8:00 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

CLAUDE B. NORRIS, M.D., *Youngstown*, Chairman, Committee on Scientific Work, presiding.

8:00 to 9:00

THE MANAGEMENT OF CANCER OF THE LARGE INTESTINES

RICHARD B. CATTELL, M.D., *Boston, Mass.*

Surgeon to the Lahey Clinic, Boston, Mass.

The means of establishing an early diagnosis in cancer of the colon and rectum from an appreciation of the first symptoms and adequate examinations are stressed. Polyps are considered the premalignant lesion of the condition and are treated by fulguration or operative removal as soon as discovered. The routine and also unusual preoperative preparation of these patients is an important factor in achieving good results. Spinal anesthesia is used in all cases. Operative methods designed for the greatest safety and for curability are presented. The factors influencing operability as well as operative mortality are enumerated. Particular emphasis is placed on the so-called "inoperable case" that may be benefited by resection. The experience obtained in the treatment of 1,000 patients with cancer of the large intestines at the Lahey Clinic reviewed.

9:00 to 10:00

THE ROLE OF SMALL INTESTINAL INTUBATION IN THE TREATMENT OF INTESTINAL OBSTRUCTION AND IN THE DIAGNOSIS OF OBSTRUCTING LESIONS

W. OSLER ABBOTT, M.D., *Philadelphia, Pa.*

Associate in medicine, University of Pennsylvania.

Intestinal obstruction carries a high mortality rate. Death occurs when strangulation remains unreduced and when distension remains unrelieved. The danger from the former cause must be averted by surgery, but the distension

can best be treated by aspiration through a small intestinal tube. This procedure is better than gastro-duodenal suction, or surgical enterostomy because it enables one to empty all of the obstructed gut, to feed the patient by mouth, to inject and subsequently to withdraw opaque solutions for diagnostic roentgenography, and, if surgery is then necessary, to operate with greater technical facility and a diminished postoperative risk. The chance of successful intubation even in the presence of complete obstruction is good when it is done by a trained person. The gross mortality rate in a group of patients in whom small intestinal intubation has been an adjunct to the treatment, is given in support of this contention.

Wednesday Afternoon, May 15

2:30 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

STANLEY D. GIFFEN, M.D., *Toledo*, Member, Committee on Scientific Work, presiding.

2:30 to 3:00

AFFECTIONS OF THE EYE SECONDARY TO GENERAL DISEASES

E. J. WENAAS, M.D., *Youngstown*.

Certain eye affections appear in the presence of general disease which have a diagnostic and prognostic value to the general practitioner. The purpose of this paper is to enumerate and evaluate these eye signs in specific diseases and interpret them as an aid in management.

3:00 to 3:30

TREATMENT OF DISORDERS OF THE THYROID

RAYMOND A. RAMSEY, M.D., *Columbus*.

Treatment of disorders of the thyroid based on over 22,000 cases from hospitals, dispensary and private practice. (1) Non-toxic goiter—types and corresponding treatment; (2) Hypothyroidism in children and adolescents; (3) Myxedema and hypothyroidism without myxedema in adults, obese and thin types, medication and other measures; (4) Thyroiditis and strumitis, acute and chronic; (5) Malignant goiter; prevention, radiation and surgery. (6) Thyrotoxicosis with or without goiter; various age groups. Treatment of the case as a whole and for specific symptoms. Clinical and laboratory methods for following progress of cases; indications for surgery.

3:30 to 4:00

DEFICIENCY DISEASES SEEN IN OFFICE PRACTICE

M. A. BLANKENHORN, M.D., *Cincinnati*.

Mostly a discussion of subclinical and mild pellagra, beriberi, and scurvy as seen in ambulatory patients. Specific vitamin deficiencies in milder forms are discussed. These are rarely seen in pure form. Some of the commoner signs and symptoms of mixed forms are described and the treatment discussed.

4:00 to 4:30

THE DIAGNOSIS OF EARLY PULMONARY TUBERCULOSIS

SIDNEY E. WOLPAW, M.D., *Cleveland*.

This paper points out the serious limitations of physical examination and clinical history in the diagnosis of early pulmonary tuberculosis. This is due to the nature of the disease which in its early stages is silent, lacking either signs or symptoms. Routine study of groups of apparently healthy individuals indicates that the only accurate methods readily available for the recognition of early tuberculosis are the X-ray and fluoroscope. The application of these

diagnostic methods will be illustrated by reference to the experience at Cleveland City Hospital during the past five years in the detection of early tuberculosis in the personnel of the tuberculosis divisions. The importance of these "pre-symptom" cases of tuberculosis will be emphasized.

Adjournment for Inspection of Exhibits.

Wednesday Evening, May 15

8:00 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

PARKE G. SMITH, M.D., *Cincinnati*, President, presiding.

8:00 to 9:00

THE CRITERIA FOR THE DIAGNOSIS OF OCCUPATIONAL SKIN DISEASE

C. GUY LANE, M.D., *Boston, Mass.*

Clinical professor of dermatology, Harvard Medical School.

Definitions of occupational skin diseases will be reviewed. The standards by which occupational dermatoses may be recognized will be enumerated and discussed. The characteristics of occupational skin disease in general and its various manifestations on the skin as a result of a multitude of causes will be examined. Emphasis will be placed on dermatitis as the most common type of skin disease due to occupation. Numerous cases will be discussed to illustrate the various criteria and lantern slides, some of them in color, will be shown to depict these manifestations.

9:00 to 10:00

CLINICAL AND EXPERIMENTAL ASPECTS OF THE MODE OF ACTION OF SULPHANILAMIDE-SULPHAPYRIDINE COMPOUNDS

RALPH R. MELLON, M.D., *Pittsburgh, Pa.*

Director of Pneumonia Research Fund of The Mellon Institute of Industrial Research, University of Pittsburgh.

Pertinent and experimental evidence will be assembled in behalf of the concept, that the drugs act by poisoning one or more of the enzymes on which highly virulent pneumococci and streptococci depend for their food supply. The starvation resulting brings about certain mutation-like changes in the germs, whereby their virulence is so impaired as to make them a ready prey for the phagocytes of the host. It will also be shown that unless the "natural resistance" powers of the host are relatively intact, the bacteriostatic effect of the drugs alone will usually not be sufficient to overcome the infection. These "natural resistance" forces are distinct from the antibodies, and their practical bearing on the recovery of the clinical case will be presented.

Thursday Afternoon, May 16

1:30 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

FRED W. DIXON, M.D., *Cleveland*, Member, Committee on Scientific Work, presiding.

1:30 to 2:30

RESPIRATION AND THE TREATMENT OF PAIN

RALPH M. WATERS, M.D., *Madison, Wis.*

Professor of anesthesia, University of Wisconsin Medical School.

Drugs which relieve pain possess other pharmacologic characteristics which tend directly or indirectly to affect the function of breathing. These undesirable characteristics must be taken into consideration and measured and utilized to minimize the results if pulmonary morbidity is to be avoided. The effects of non-volatile agents, opiates, barbiturates, etc., as well as volatile drugs will be discussed and means suggested of avoiding deleterious changes in the physiology of respiration.

Thursday Afternoon, May 16

4:00 o'clock

Meeting Place—Pavillon Caprice, Fourth Floor

WALTER K. STEWART, M.D., *Youngstown*, Chairman, Committee on Poor Relief, presiding.

CONFERENCE ON MEDICAL PROGRAMS FOR RECIPIENTS OF PUBLIC ASSISTANCE

Program Sponsored by Committee on Poor Relief, Ohio State Medical Association.

Address: HON. CHARLES L. SHERWOOD, State Director of Public Welfare, *Columbus*.

Round-Table Discussion.

Adjournment for Inspection of Exhibits.

REGISTRATION . . .

In compliance with Chapter 1 of the By-Laws of the Ohio State Medical Association, only physicians who are members in good standing in the Association will be permitted to register and attend the various sessions of the Annual Meeting, except physicians who reside in other states and are members in good standing of their respective state medical associations. Medical students, interns and members of other scientific professions may register as guests and will be admitted to all sessions.

Admission to all sessions will be by badge only, which badge may be secured upon registering. Registration Headquarters will be open daily from 8:00 A.M. to 5:30 P.M., and will be located on the Fourth Floor Foyer of the Netherland Plaza Hotel adjacent to the entrance into the Hall of Mirrors, where the General Sessions will be held, and to the Technical and Educational Exhibit Halls. Most of the scientific section meetings and round-table conferences also will be held in rooms on the Fourth Floor.

ROUND-TABLE CONFERENCES . . .

Admission will be by ticket only. Tickets available at special registration booth opposite the General Registration Headquarters, Fourth Floor Foyer. Not more than one ticket will be issued to an individual member on either day. State Association membership card must be presented to obtain conference ticket. Only 50 tickets will be issued for each conference. After a conference has been under way for a period of 15 minutes, members not holding tickets or members holding them for some other conference will be admitted to a particular conference, providing those in attendance at that conference do not exceed 50. Ten conferences will be held simultaneously on Tuesday, May 14, and 10 additional conferences will take place simultaneously on Thursday, May 16.

Tuesday Afternoon, May 14

2:30 to 4:00 o'clock

1. PNEUMONIA: NEWER METHODS OF TREATMENT

LEADER: C. C. Sherburne, M.D., *Columbus*.

Room 602, Sixth Floor.

2. LOW BACK PAIN

LEADER: John M. Van Dyke, M.D., *Canton*.

Parlor F, Fourth Floor.

3. PHYSIOTHERAPY IN OFFICE PRACTICE

LEADER: Herbert W. Kendell, M.D., *Dayton*.

Parlor H, Fourth Floor.

4. TREATMENT OF ECZEMA IN CHILDHOOD

LEADERS: Elmore B. Tauber, M.D., *Cincinnati*, and Lloyd E. Seyler, M.D., *Dayton*.

Parlor D, Fourth Floor.

5. ANESTHESIAS AND ANALGESIAS IN SURGERY,
OBSTETRICS AND GYNECOLOGY

LEADER: Fredk. W. Clement, M.D., *Toledo*.

Room 622, Sixth Floor.

6. INFECTIONS OF THE HAND

LEADER: A. C. Brickel, M.D., *Cleveland*.

Parlor E, Fourth Floor.

7. TREATMENT OF SYPHILIS AND GONORRHEA

LEADERS: John E. Rauschkolb, M.D., *Cleveland*, and Henry B. Freiberg, M.D., *Cincinnati*.

Room 702, Seventh Floor

8. TOXEMIAS OF PREGNANCY

LEADER: Charles W. Pavey, M.D., *Columbus*.
Parlor I, Fourth Floor.

9. TREATMENT OF CARDIAC EMERGENCIES

LEADER: Roy W. Scott, M.D., *Cleveland*.
Parlor G, Fourth Floor.

10. EYE PROBLEMS ENCOUNTERED BY THE GENERAL PRACTITIONER

LEADER: A. B. Bruner, M.D., *Cleveland*.
Room 722, Seventh Floor.

Thursday Afternoon, May 16

2:30 to 4:00 o'clock

11. CHEST PAINS

LEADER: Albert F. Kuhl, M.D., *Dayton*.
Parlor G, Fourth Floor.

12. TREATMENT OF UNDULANT FEVER

LEADER: Lee Foshay, M.D., *Cincinnati*.
Parlor F, Fourth Floor.

13. TREATMENT OF THE MORE COMMON ANO-RECTAL CONDITIONS

LEADER: Paul J. Fuzy, M.D., *Youngstown*.
Room 602, Sixth Floor.

14. PRACTICAL ASPECTS OF ENDOCRINE DISTURBANCES IN CHILDHOOD

LEADER: E. R. Thomas, M.D., *Youngstown*.
Room 622, Sixth Floor.

15. JAUNDICE: LABORATORY AIDS, DIAGNOSIS AND PROGNOSIS

LEADER: H. L. Reinhart, M.D., *Columbus*.
Room 702, Seventh Floor.

16. APPENDICITIS: HOW REDUCE MORTALITY

LEADER: Ralph M. Watkins, M.D., *Cleveland*.
Parlor H, Fourth Floor.

17. THE AILING FOOT AND ITS TREATMENT

LEADER: W. H. McGaw, M.D., *Cleveland*.
Parlor D, Fourth Floor.

18. STERILITY IN WOMEN

LEADER: George Lyford, M.D., *Cincinnati*.
Room 722, Seventh Floor.

19. IMPORTANCE OF EARLY DIAGNOSIS IN TUBERCULOSIS, CANCER, AND THE DEGENERATIVE DISEASES IN PUBLIC HEALTH

LEADER: R. H. Markwith, M.D., *Columbus*.

Parlor E, Fourth Floor.

20. EAR, NOSE, AND THROAT PROBLEMS INCLUDING VASO-MOTOR RHINITIS AS ENCOUNTERED BY THE GENERAL PRACTITIONER

LEADER: Henry M. Goodyear, M.D., *Cincinnati*.

Parlor I, Fourth Floor.

SECTION ON MEDICINE . . .

WM. P. GARVER, M.D., *Cleveland* Chairman

JOHN L. STIFEL, M.D., *Toledo* Secretary

Thursday Morning, May 16

9:30 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

DIURETICS IN THE TREATMENT OF LOCALIZED EDEMAS

MAURICE A. SCHNITKER, M.D., *Toledo*

The mercurial diuretics (salyrgan, mercupurin) have been used chiefly in the treatment of cardiac and renal edema. Their use need not be confined to such cases, as they are effective often in decreasing swelling and relieving the pain and distress of such cases as mediastinal obstruction with resulting swelling of the head and shoulders (2 cases); acute thrombophlebitis (2 cases); edema following trauma to an extremity (2 cases); and severe swelling with dermatitis venanata (1 case). In such instances the edema delays recovery in that circulation to the part is hindered. Swelling of the arm following radical mastectomy may be relieved also (2 cases), which has a distinct cosmetic advantage as well as giving relief of discomfort. These patients had no cardiac or renal insufficiency. This form of therapy in the treatment of localized edema is of very practical application. It is easy to carry out, for both physician and patient, and often does away with uncomfortable elevation, hot or cold packs, and a long convalescence. It distinctly hastens recovery.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

ARTERIAL CHANGES IN DIABETES

CHARLES A. LAMONT, M.D., *Canton*.

A case of diabetes, beginning in adolescence and of 17 years', now 20 years', duration is reported with widespread calcification of the peripheral arteries including small branches of the fingers and toes, a true Mönckeberg's sclerosis. Twelve lantern slides covering X-rays of whole body are shown demonstrating calcification beginning at the axilla in upper extremities and at pelvis in lower extremities with entire absence in the elastic arteries and a normal heart. Investigations to date fail to find a similar condition reported at any age. The pathology of various forms of arteriosclerosis is discussed. A survey

of the literature calls attention to increasing association of arteriosclerosis and coronary disease with diabetes. The importance of better control of diabetes especially the juvenile cases emphasized to avoid such arterial changes as here pictured.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

GOUT: A STUDY OF SOME ETIOLOGICAL FACTORS AND DIAGNOSTIC CRITERIA

FREDERICK S. COOMBS, M.D., *Youngstown*. (By invitation.)

The gouty diathesis is an inherited constitutional disease characterized by a disorder of urate metabolism. The exact transmission of the tendency has not been elicited, but the presence of the purine metabolism dyscrasia in a sufficient number of members of the families of patients with gout warrants the conclusion that it is an inherited syndrome. Studies of renal function by inulin and uric acid clearances show that patients with gout do not have any constitutional inferiority in the elimination of urate. Post mortem studies indicate that deposition of urate is exclusively in the interstitial tissue of the kidney where it does not interfere with renal function. The disorder, being present from birth, may or may not in subsequent years give rise to gout and gouty arthritis. Factors influencing the frequency of attacks of gout and the criteria for the diagnosis of gout are considered. The symptoms in various joints are enumerated. Differential diagnosis discussed. The recognition of gout from other forms of arthritis is important since relief can be obtained with the pure alkaloid, colchicine. Routine serum uric acid in all arthritic patients is invaluable.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

BRUCELLOSIS (UNDULANT FEVER)

WALTER M. SIMPSON, M.D., *Dayton*.

The prediction of a decade ago that brucellosis would become recognized as a public health problem of major proportions has been fulfilled. Only 112 cases were reported in the United States in 1927. By 1937 the number of officially reported cases was 2,497. A study of 167 cases of brucellosis in Dayton shows that 143 cases occurred between 1928 and 1931. Since the passage of a pasteurization ordinance in 1931, only 24 cases of acute brucellosis have been encountered in Dayton; in each instance the patient had consumed raw milk elsewhere prior to the onset of illness. The disease is widely prevalent in rural areas and in communities in which milk is not pasteurized. Modern methods of diagnosis and treatment of the acute and chronic forms of brucellosis will be discussed.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

COMPLICATIONS ABOUT THE EYE IN ACUTE INFECTIOUS AND CONTAGIOUS DISEASES

JOHN A. TOOMEY, M.D., *Cleveland*.

The anatomy of and about the eye is reviewed briefly. The conditions which complicate infectious and contagious diseases are enumerated, both as to localization and etiology. In general, the subject matter constitutes a brief resumé of what to have in mind when caring for these types of infections.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON SURGERY . . .

JOHN V. HARTMAN, M.D., *Findlay*.....Chairman
 ROBT. T. ALLISON, JR., M.D., *Akron*.....Secretary

Wednesday Morning, May 15

9:30 o'clock

Meeting Place—Hall of Mirrors, Fourth Floor

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

POLYPS OF THE LOWER SIGMOID AND RECTUM

W. W. GREEN, M.D., *Toledo*.

A study based upon the analysis of 70 cases. The series includes the benign growths seen in young children as well as polyps in which circumscribed areas show malignant changes. Many of these tumors are symptomless and discovered only upon routine sigmoidoscopic examination. They are seldom diagnosed with the ordinary colonic filling and there is a tendency to place entirely too much dependence upon a negative X-ray report. The incidence is greater than is generally supposed because the diagnosis in most cases is evident only with sigmoidoscopy. Although these polyps are usually benign they display a definite tendency to undergo malignant degeneration. They are accessible through the operating sigmoidoscope and the abdominal route is seldom necessary for their destruction or removal.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

INTESTINAL OBSTRUCTION IN THE NEWBORN DUE TO CONGENITAL ANOMALIES

DONALD M. GLOVER, M.D., *Cleveland*.

The commonest causes of intestinal obstruction in the newborn are errors of rotation, stenosis due to hypoplasia or irregularities of development, and complete aplasia of some part. The symptoms of obstruction become apparent soon after birth and demand immediate investigation and prompt treatment. Careful roentgenographic studies of gas filled loops may be sufficient to clinch the diagnosis, but barium cautiously administered by mouth or by rectum may be necessary. Operative treatment offers the only relief, but operative trauma is poorly borne by the infant. The exploration must be brief, the anomaly immediately recognized and the continuity of the intestine established if the infant is to survive. Enterostomy is almost always fatal. The commoner types of intestinal anomaly will be described and illustrated by case reports and slides.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

A CONSIDERATION OF SOME OF THE CAUSES OF INCREASED INTRACRANIAL PRESSURE

JOSEPH P. EVANS, M.D., *Cincinnati*.

For most practical purposes the skull may be considered as a closed box. Normally the contents of the box are made up of brain tissue with its intracellular fluids, the blood vessels and their contained blood, and the cerebrospinal fluid. Abnormally there may be added to these contents tumor substance, extravasated blood, abnormal amounts of tissue fluids, or inflammatory products. There may also be added, due to obstruction of their normal flow, increased amounts of blood or of cerebrospinal fluid. An understanding of the mechanism of increased intracranial pressure implies a clear concept of these various factors and also of the path of cerebrospinal fluid flow, which will be

briefly reviewed. Some of the signs and symptoms warning of increasing intracranial pressure will be noted—in an effort to facilitate the earlier recognition and subsequent treatment of these conditions. For satisfactory therapeutic results depend to a very great extent upon the early recognition of the underlying cause.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE ACUTE GALLBLADDER

ROBERT C. AUSTIN, M.D., *Dayton*.

An analysis of the premises upon which immediate or early and delayed treatments are based. The term "immediate" rather than "early" has been confusing. Pathological facts and clinical experience support the sound trend toward "early" surgical treatment.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

EMPHYEMA THORACIS: A METHOD OF TREATMENT BY CONTINUOUS TIDAL IRRIGATION AND DRAINAGE

JACK GREENFIELD, M.D. (By invitation), and GEORGE M. CURTIS, M.D., *Columbus*.

A method for the treatment of acute or chronic non-loculated empyema by continuous tidal irrigation, drainage and subsequent suction, based upon the principles of Hart, but simplifying the original apparatus so that it may be easily procured and its management readily understood, is presented. It is a closed method wherein, through a simple trocar thoracotomy, the empyema cavity is irrigated and drained continuously until the fluid in the empyema becomes clear and then the lung permitted to expand out to the chest wall gradually by controlled hydrostatic negative pressure. In this manner toxicity may be overcome early, the empyema cavity is drained, mediastinal flutter cannot occur, the drainage tube is kept from plugging, loculation of the empyema is prevented, no vital capacity is sacrificed and no deformity incurred. Aside from these considerations, morbidity is decreased and the length of treatment required reduced over other methods. A simpler method modified by adding measured suction from the start is suggested for empyema complicated by bronchopleural fistula. A case is presented to demonstrate some of the practical considerations involved.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

ESSAYISTS-DISCUSSANTS . . .

Essayists and discussants are requested to comply with Sections 5 and 7 of Chapter 3 of the By-Laws of the Ohio State Medical Association reading in part as follows:

"The papers and discussions in sections shall be limited to scientific subjects."

All papers read before this Association shall be its property and *immediately after being read shall be deposited with the secretary of the section*, if read before a section, or with the Executive Secretary, if read before a general session. No author shall cause a paper read before this Association to be published elsewhere as original, or until published in the official *Journal* of this Association."

SECTION ON OBSTETRICS AND GYNECOLOGY . . .

R. C. DOAN, M.D., *Miamisburg*.....Chairman
CHARLES W. PAVEY, M.D., *Columbus*.....Secretary

Thursday Morning, May 16

9:30 o'clock

Meeting Place—Pavillon Caprice, Fourth Floor

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

OBSTETRIC PELVIS

JOHN GARDINER, M.D., *Toledo*.

Is manual examination adequate for the conduct of labor? Comments on radiological and manual measurements.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

MANAGEMENT OF HEMORRHAGE IN PREGNANCY

RALPH K. RAMSAYER, M.D., *Canton*.

Discussion of the differences in approach to the problem of visible external hemorrhage and concealed internal hemorrhage. Evaluation of underlying factors and conditions predisposing to hemorrhage; hereditary, congenital, and acquired characteristics. General survey of common obstetrical complications and their related hemorrhagic possibilities, i.e., fibroids, placenta praevia, polypii, varicosities, carcinoma, post partum hemorrhage, abruptio placenta, ruptured uterus, ruptured ectopic, and abdominal pregnancy. Emphasis on and importance of early diagnosis and treatment; consultations, hospitalization, and blood transfusion, i.e., both auto (technic of) and indirect methods; value of blood bank.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

MINOR DISCOMFORTS OF PREGNANCY

FRANCIS W. DAVIS, M.D., *Columbus*.

Pregnancy is quite commonly complicated by variety of distressing but non-serious symptoms. Common among these are nausea and vomiting, heart burn, pruritis, vaginal discharge, abdominal tension, edema, constipation and frequency. The treatments for relief of these conditions is considered in the light of experience in private and clinic practice.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

CARE OF THE NEWBORN

MARION L. AINSWORTH, M.D., *Columbus*.

Includes comments on resuscitation, use of incubators, use of carbon-dioxide oxygen mixtures, initial and subsequent bathing, when to begin feedings,

choice of feedings, vomiting, constipation, diarrhea, physiologic jaundice, prevention of ammoniacal diaper dermatitis, etc.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

THE USE AND ABUSE OF CAESARIAN SECTION

D. D. FORWARD, M.D., *Ashtabula*.

Brief historical survey of Caesarian section to show that with the increasing safety of the operation the indications for the operation are broadening. Brief survey of statistics from nation, Chicago, Boston, Cleveland, with statistics from a small hospital like Ashtabula for comparison. Deductions may be drawn that Caesarian section is too often used because of poor obstetrical judgment and poor obstetrical management, that Caesarian section should be more an elective procedure than a measure of last resort. Few case histories.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON EYE, EAR, NOSE AND THROAT...

EDWARD KING, M.D., *Cincinnati*.....Chairman
W. H. EVANS, M.D., *Youngstown*.....Secretary

Wednesday Morning, May 15

9:30 o'clock

Meeting Place—Parlors A, B, C, D, Fourth Floor

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:05

OCULAR COMPLICATIONS OF DIABETES MELLITUS

EDWARD R. THOMAS, M.D., *Dayton*.

A study of 100 diabetic patients complaining of ocular disturbances. A correlation of ocular complications with regard to: Severity of the diabetes, duration of the disease, age of the patient and accompanying hypertension is made. Diabetic cataract, diabetic retinitis, refractive changes, amblyopia exanopsia, extra-ocular muscle paralysis and rubeosis diabetica are discussed.

General Discussion—5 minutes.

10:05 to 10:25

DEEP INFECTIONS OF THE NECK

SAMUEL IGLAUER, M.D., *Cincinnati*.

During recent years a great deal of exact attention has been given to deep infections in the neck. These infections occur either in the lymph glands or "spaces" of the neck, or occasionally within the veins. The anatomic spaces contain loose distensible areolar connective tissue. The spaces are limited by tough, fibrous layers (fascia) or by muscles or viscera. The spaces most

commonly involved are: (1) peripharyngeal; (2) retropharyngeal; (3) periesophageal (mediastinitis); (4) parapharyngeal; (5) submental (Ludwig's); (6) septic thrombophlebitis (jugular). The signs and symptoms of infection in each space will be enumerated, and the surgical approach to each space will be briefly described.

General Discussion—5 minutes.

10:25 to 11:10

LARYNGEAL EMERGENCIES (ESPECIALLY LARYNGO-TRACHEOBRONCHITIS)

THOMAS C. GALLOWAY, M.D., *Evanston, Ill.*

Assistant professor of otolaryngology, Northwestern University Medical School, Chicago, Ill.

Causes of laryngeal obstruction are outlined. As an example acute laryngo-tracheobronchitis is discussed in detail. The secondary mechanical and vascular changes are stressed as a cause of atelectasis, emphysema, pneumonitis and secondary infection. Indications for tracheotomy and intubation are given and treatment by irrigation and postural drainage is outlined. A colored film demonstrates this as well as deliberate tracheotomy over the bronchoscope.

11:10 to 11:30

OPHTHALMOSCOPIC INTERPRETATION OF RETINAL VASCULAR DISEASE

WILLIAM F. HATCHER, M.D., *Youngstown.*

Lantern slides will be used to demonstrate normal and abnormal retinal vasculature. Ophthalmoscopic changes in the retinal vessels will be considered under a classification of early, intermediate and late changes. The etiology and importance of each change will be discussed.

General Discussion—5 minutes.

11:30 to 11:50

OTITIS MEDIA IN SCARLET FEVER; A SURVEY OF CASES AT CLEVELAND CITY HOSPITAL FOR THE PAST TEN YEARS

CLARENCE W. ENGLER, M.D., *Cleveland.*

This report will cover a survey of the scarlet fever cases for the past 10 years at Cleveland City Hospital. No complications of scarlet fever other than otitis media with its resulting complications will be presented. The following points will be discussed: the incidence of otitis media, both unilateral and bilateral; the week in the disease in which the otitis media appeared; the age incidence and its relation to the development of mastoiditis; the increased incidence of otitis media when the scarlet fever is complicated by another acute exanthem; the seasonal and yearly variation; the incidence of mastoiditis after myringotomy and after spontaneous rupture of the drum; the age groups of those developing mastoiditis; the week of the otitis media during which the mastoiditis developed; the mortality rate of otitis media and of mastoiditis; sulfanilamide in cases with ear involvement.

General Discussion—5 minutes.

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON PEDIATRICS . . .

W. B. TAGGART, M.D., *Dayton* ChairmanEDWARD A. WAGNER, M.D., *Cincinnati* Secretary**Wednesday Morning, May 15****9:30 o'clock**

Meeting Place—Pavillon Caprice, Fourth Floor

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10**OBSERVATIONS ON THE APPLICATION OF VITAMIN D TO THE SKIN**EDWARD A. WAGNER, M.D., and DANIEL V. JONES, M.D.,
Cincinnati.

A review of the history of the application of vitamin D to the skin is given. The technic employed in the application of irradiated ergosterol to the skin of rachitic infants is described along with method of control used in the hospitals. The report of several cases with clinical X-ray and chemical diagnosis of rickets, treated by the topical application of vitamin D is presented. A series of lantern slides of each case demonstrating the healing process will be shown. The observation demonstrates the cure of rickets by the application of vitamin D to the skin. The method is not presented to replace the administration of vitamin D by the accepted methods but rather to be used in cases where the gastro-intestinal tract is unable to tolerate vitamin D by mouth.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35**THE USE OF HORMONES IN CRYPTORCHIDISM**CARL E. ZEITHAML, M.D., *Cleveland.*

Forty-three boys with 52 undescended testes were treated with gonadotropic substance of human urine of pregnancy. Satisfactory descent realized in 44 per cent of the bilateral and in 32 per cent of the unilateral testes. Some of the boys previously had been given male sex hormone (testosterone propionate) without improvement in the position of the testes. The procedure for routine treatment is outlined. Comments are made on the selection of patients for treatment, on possible untoward effects, and on the cause of failure as revealed by operation.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00**EXAMINATION OF THE NORMAL CHILD**GEORGE C. MALLEY, M.D., *Zanesville.*

As a result of widespread campaigns for periodic health examinations by insurance companies, industrial organizations, and welfare groups the practitioner today is being called upon to examine an increasing number of apparently healthy children in their various stages of mental and physical growth. The so-called "normal child" has therefore been the object of a great many studies in recent years, especially by child study institutes in an effort to ascertain some normal standard for growth and development. Some knowledge of this aspect of pediatrics is essential to the family physician to meet the ever increasing demand of the public and to maintain a better state of health among our children.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE ROENTGEN KYMOGRAPH: ITS VALUE IN THE
STUDY OF HEART DISEASE IN CHILDREN

J. VICTOR GREENEBAUM, M.D., SAMUEL BROWN, M.D., and
THEODORE K. SELKIRK, M.D., *Cincinnati*.

Description of technic: Kymograph of normal heart in children; kymographs in acquired and congenital heart disease in childhood; discussion of abnormal findings and their significances. Lantern slide demonstration.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

CASE OF LYMPHOCYTIC CHORIO-MENINGITIS WITH
ISOLATION OF THE VIRUS

JOHN E. BROWN, JR., M.D., *Columbus*.

A case of lymphocytic chorio-meningitis in a 13-year-old girl is described, with isolation of the offending virus. A brief description of the disease is given with a review of the current literature.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON NERVOUS AND MENTAL DISEASES . . .

RICHARD E. STOUT, M.D., *Cleveland* Chairman
NICHOLAS MICHAEL, M.D., *Columbus* Secretary

Thursday Morning, May 16

9:30 o'clock

Meeting Place—Parlors A, B, C, D, Fourth Floor

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

TWELVE YEARS OF MALARIA TREATMENT IN
DEMENTIA PARALYTICA

CHARLES LEWIS LANGSAM, M.D., *Macedonia*. (By invitation.)

This paper considers a study of all the general paretics who were discharged from Cleveland City Hospital Psychopathic Division during the years 1927 to 1931, inclusive. The total number of cases was 398 of which number 293 received malaria, 91 died, 166 were discharged, and 141 were transferred or discharged to an Ohio state hospital for further care. The paper analyzes the deaths as to contributing factors of malaria and also further analyzes the discharges and commitments as to their improvement at that time. In addition to this there is a follow-up study of those patients who were committed to a state hospital up to August of 1939.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

THE DYNAMIC CONCEPTION OF PSYCHOPATHIC PERSONALITY

MAURICE LEVINE, M.D., *Cincinnati*.

The psychodynamic understanding of the neuroses and of some of the psychoses finds increasing acceptance. For a variety of reasons, the psychodynamic approach to the psychopathic personality is not so well understood or accepted. The paper will attempt to stress the understanding of the psychopath in terms of genetics and dynamics, rather than to put the problem in terms of the usual medico-legal difficulties. The paper will formulate the contrast between psychopathic personality, neurosis, psychosis and normality.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

SHOCK TREATMENT IN SCHIZOPHRENIC AND AFFECTIVE PSYCHOSES

D. A. JOHNSTON, M.D., *Cincinnati*.

This paper deals with the work in a private hospital and covers both insulin and metrazol treatments in schizophrenia and the affective psychoses. It is a summary of results since September, 1937, and involves 60 cases. Most of these have been closely followed since discharge from the hospital. A comparison is also made between these shock treated cases and similar ones previous to the introduction of this therapy with relation to duration of illness before admission and length of residence in the hospital for recovered and improved cases.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

SYMMETRIC CEREBRAL CALCIFICATION SIMULATING BRAIN TUMOR

ALBERT T. STEEGMANN, M.D., *Cleveland*.

A patient with a long history of Jacksonian epileptic seizures and mental deterioration finally developed symptoms simulating a brain tumor. Autopsy revealed symmetric cerebral calcification. The clinical course, differential diagnosis, pathologic changes in the brain and pathogenesis of the disease are discussed.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

HEMATOMYELIA

WILLIAM RAVINE, M.D., *Cincinnati*.

The older writers called this condition "Apoplexia of the Cord". May come on without an accident, can be associated with a trivial or severe injury to the spinal column. Associated with transient paralysis of one or both lower extremities. The spinal fluid may be bloody or xanthochromic. X-rays of the spine in the two cases reported showed no evidence of fracture or dislocation. Treatment instituted was ordinary bed rest and alteratives internally. Condition must be differentiated from tumor of the cord, fracture and dislocations of the vertebrae. Lues may be a predisposing factor. The two cases reported made a complete recovery. Both cases on admission to the hospital were looked upon as functional cases. Diagnosis was made on the history of the case, transient paralysis and xanthochromic fluid.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

PUBLIC HEALTH LUNCHEON . . .

Wednesday, May 15

12:00 o'clock

Meeting Place—Hall of Mirrors Foyer, Third Floor

Under the auspices of the Section on Public Health and Preventive Medicine, a round-table luncheon will be held Wednesday, 12:00 Noon, May 15, in the Hall of Mirrors Foyer, Third Floor, Netherland Plaza. All members will be welcome at the luncheon and program which will follow. Those interested in the Public Health Luncheon will be able to purchase tickets at the time they register. The program arranged by Dr. John J. Sutter, Wooster, chairman, and Dr. Beatrice T. Hagen, Zanesville, secretary, of the section is as follows:

"Milk Borne Diseases," Harold J. Knapp, M.D., Cleveland, Health Commissioner of the City of Cleveland. Discussant: F. M. Houghtaling, M.D., Sandusky, Health Commissioner of the City of Sandusky and Erie County.

"Pulmonary Tuberculosis Case Finding," E. P. Edwards, M.D., Cleveland. Discussant: C. L. Hyde, M.D., Edwin Shaw Sanatorium, Akron.

"Educational Developments Among the Crippled Children, the Hard of Hearing, and Sight Saving Classes," Mrs. Hazel McIntire, Columbus, Chief of the Division of Special Classes, State Department of Education. Discussant: Mr. Walter Underwood, Columbus, Secretary of the Ohio Society for Crippled Children.

EDUCATIONAL EXHIBITS . . .

North and South Exhibit Halls. Fourth Floor—Open Daily to 7 p.m.

PLANOGRAPHY (BODY SECTION RADIOGRAPHY)

Warren C. Breidenbach, M.D., Dayton.

THE TREATMENT OF JUVENILE DIABETES

Thomas P. Sharkey, M.D., Dayton.

PRESCRIPTIONS

Cincinnati Academy of Pharmacy and Ohio Valley Druggists Association in cooperation with the Ohio State Pharmaceutical Association.

LESSONS LEARNED FROM 175 CASES OF CARCINOMA OF THE CERVIX

Wm. H. Meffley, M.D., and Murray E. Goodrich, M.D., Toledo.

WHAT THE GENERAL PRACTITIONER SHOULD KNOW ABOUT ALLERGY

Milton B. Cohen, M.D., Chairman, Cleveland Allergy Society, Cleveland.

CLINICAL OPHTHALMOLOGY

Department of Ophthalmology, University of Cincinnati and Cincinnati General Hospital.

X-RAY STUDIES OF THE NECK

Samuel Iglauer, M.D., and Sidney Lange, M.D., Departments of Otolaryngology and Roentgenology, University of Cincinnati; Samuel Brown, M.D., Department of Radiology, Jewish Hospital, Cincinnati.

INDICATIONS AND CONTRAINDICATIONS FOR SPLENECTOMY

Charles A. Doan, M.D., and Bruce K. Wiseman, M.D., Department of Medicine, Ohio State University, Columbus.

ANEMIA

Russell L. Haden, M.D., Cleveland Clinic, Cleveland.

CLINICAL LABORATORY TESTS OF LIVER FUNCTION

H. L. Reinhart, M.D., John W. Means, M.D., and C. J. De Lor, M.D., Columbus; and the Ohio State Society of Pathologists.

PROTHROMBIN DEFICIENCY STATES

Richard J. Stevens, M.D., Gastric Laboratory, Cincinnati General Hospital, Cincinnati.

THORACOPLASTY AS A METHOD OF TREATMENT IN PULMONARY TUBERCULOSIS

B. N. Carter, M.D., Cincinnati General Hospital; and J. N. Christiansen, M.D., Hamilton County Tuberculosis Sanitarium, Cincinnati.

GROWTH OF THE FACE

Brush Foundation and Bolton Fund, Cleveland.

CARCINOMA OF THE RECTUM

Thomas E. Jones, M.D., Cleveland Clinic, Cleveland.

PROTRUDED INTERVERTEBRAL DISCS

Frank H. Mayfield, M.D., Cincinnati.

THE PATHOLOGY AND TREATMENT OF SKULL FRACTURES AND CEREBRAL INJURIES

James N. Wychgel, M.D., St. Alexis Hospital, Cleveland.

ERRORS IN ROENTGEN DIAGNOSIS—PSEUDO-FRACTURES

George L. Sackett, M.D., Harry L. Farmer, M.D., Walter C. Hill, M.D., and Merthyn A. Thomas, M.D., Cleveland.

POSITIONING IN THE TREATMENT OF CERTAIN FRACTURES

Dudley M. Stewart, M.D., Department of Orthopedic Surgery, Toledo Clinic, Toledo.

CANCER—A GROWING NATIONAL HEALTH PROBLEM

Metropolitan Life Insurance Company, New York City.

PHOTOMICROGRAPHS IN KODACHROME

H. L. Claassen, M.D., and Charles Goosmann, M.D., Cincinnati.

TECHNICAL EXHIBITORS . . .

North and South Exhibit Halls and Parlors J and L, Fourth Floor
Foyer—Open Daily to 7 p.m.

Exhibitor	Address	Booth No.
American Medical Business Bureau, Inc.	Fort Wayne, Ind.	23
American Safety Razor Blade Corp.	Brooklyn, N. Y.	20
Arlington Chemical Co.	Yonkers, N. Y.	28
Bilhuber-Knoll Corp.	Orange, N. J.	37
Borden Company, The	New York City	4
Cameron's Surgical Specialty Co.	Chicago, Ill.	5
Coca-Cola Company	Atlanta, Ga.	1
Davies, Rose & Company, Ltd.	Boston, Mass.	42
DePuy Manufacturing Co.	Warsaw, Ind.	38
Dietene Company	Minneapolis, Minn.	40
Foregger Company	New York City	Parlor L
General Electric X-Ray Corp.	Chicago, Ill.	18, 19
Gerber Products Company	Fremont, Mich.	29
Heinz Company, H. J.	Pittsburgh, Pa.	24
Holland-Rantos Co., Inc.	New York City	33
Horlick's Malted Milk Corp.	Racine, Wis.	12
Jones Metabolism Equipment Co.	Chicago, Ill.	11
Kelley-Koett Mfg. Co.	Covington, Ky.	2-A
Lederle Laboratories, Inc.	New York City	41
Liebel-Flarsheim Company	Cincinnati, O.	26, 27
Lilly & Company, Eli	Indianapolis, Ind.	9
Lippincott Company, J. B.	Philadelphia, Pa.	8
M & R Dietetic Laboratories, Inc.	Columbus, O.	25
Mead Johnson & Company	Evansville, Ind.	31, 32
Medical Protective Co. of Fort Wayne, Indiana	Wheaton, Ill.	6
Mellin's Food Company	Boston, Mass.	3
Merrell Company, Wm. S.	Cincinnati, O.	14
Mosby Company, C. V.	St. Louis, Mo.	17
Natural Ray Mineral Water Co.	St. Louis, Mich.	2
Parke, Davis & Company	Detroit, Mich.	Parlor J
Petrolagar Laboratories, Inc.	Chicago, Ill.	36
Philip Morris & Company	New York City	21
Picker X-Ray Corp.	New York City	34, 35
S M A Corporation	Chicago, Ill.	43
Saunders Company, W. B.	Philadelphia, Pa.	10
Scheer & Burke X-Ray Sales Co.	Cleveland, O.	Parlor J
Smith, Kline & French	Philadelphia, Pa.	Parlor L
Stearns & Co., Frederick	Detroit, Mich.	7
Vernor Company, James	Detroit, Mich.	22-A
Wagner's Sons Co., W. T.	Cincinnati, O.	15
Westinghouse X-Ray Co.	East Pittsburgh, Pa.	39
White Laboratories	Newark, N. J.	22
Winthrop Chemical Co.	New York City	16
Woche and Son Co., Max	Cincinnati, O.	30
Wyeth and Bro., Inc., John	Philadelphia, Pa.	13

ANNUAL MEETING COMMITTEES . . .

STATE ASSOCIATION

Committee on Scientific Work

CLAUDE B. NORRIS, Youngstown, *Chairman*

Albert F. Kuhl, Dayton	Fred W. Dixon, Cleveland
M. M. Zinninger, Cincinnati	Stanley D. Giffen, Toledo

Committee on Educational Exhibits

M. M. ZINNINGER, Cincinnati, *Chairman*

Robert J. Tapke, Cincinnati	E. A. Kindel, Cincinnati
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CINCINNATI COMMITTEES

WM. M. DOUGHTY, *General Chairman*

General Committee

Wm. M. Doughty	M. M. Zinninger
Parke G. Smith	E. O. Swartz

Reception

JOHN A. CALDWELL, *Chairman*

B. N. Carter	Lee Foshay	Moses Salzer
Daniel J. Kindel		Lloyd B. Johnston

Halls and Meeting Places

WILLIAM J. GRAF and CECIL STRIKER, *Co-Chairmen*

Byron E. Boyer	William M. German	J. J. Longacre	James M. Rueggeger
Richard D. Bryant	N. J. Giannestras	Louis A. Lurie	Harry M. Salzer
A. T. Childers	J. Victor Greenebaum	Frank H. Mayfield	Leon Schiff
Joseph G. Crotty	Albert L. Haas	Ralph H. Miller	A. L. Schwartz
Clyde M. Dummer	Joseph D. Heiman	Charles H. Moore	Theodore K. Sellkirk
Daniel E. Earley	D. W. Heusinkveld	Louis B. Owens	H. H. Shook
Ralph W. Eddy	Charles E. Howard	Robert Perlman	Louis Sommer
Howard D. Fabing	Robert L. Johnston	Dewey H. Reps	Clifford J. Straehley
E. V. Ferguson	Daniel J. Kindel	Clare R. Rittershofer	Emil R. Swepston
Eugene B. Ferris	E. A. Kindel	Daniel C. Rivers	David A. Tucker, Jr.
Willard B. Fessenden	Edward King	Clyde S. Roof	Theodore H. Vinke
Harry L. Fry	Robert H. Kotte	Robert C. Rothenberg	T. Brent Wayman
Stanley T. Garber			Carl A. Wilzbach

Annual Banquet

HENRY B. FREIBERG, *Chairman*

Symmes F. Oliver	Ralph G. Carothers
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Projection Apparatus

CLYDE S. ROOF, *Chairman*

Daniel J. Kindel	Ralph Hatfield	John G. Fleming
Wm. M. German		Mr. Clem Haun
Charles H. Moore		Mr. Elmer Heyn

Radio Programs

CARL A. WILZBACH

Entertainment for Women Guests

MRS. HORACE F. TANGEMAN, *Chairman*

Mrs. Richard Austin	Mrs. Wm. Freyhof	Mrs. Joseph Lindner	Mrs. David Tucker
Mrs. Arthur Beyer	Mrs. Gaston Hannah	Mrs. Charles J. McDevitt	Mrs. Derrick Vail
Mrs. Richard Bryant	Mrs. Charles Heisel	Mrs. Gordon McKim	Mrs. Ward H. Ventress
Mrs. Ralph Carothers	Mrs. Louis Heyn	Mrs. Wm. Mithoefer	Mrs. E. A. Wagner
Mrs. Daniel Davies	Mrs. Samuel Iglauer	Mrs. Wm. O. Ramey	Mrs. Max Zinninger
Mrs. Starr Ford	Mrs. Charles Kiely	Mrs. E. O. Swartz	

Have You Made Your Hotel Reservations for the 1940 Annual Meeting, Cincinnati? If Not, Do So Immediately

HAVE you reserved hotel accommodations for the Ninety-Fourth Annual Meeting of the Ohio State Medical Association, to be held at the Netherland Plaza, Cincinnati, Tuesday, Wednesday and Thursday, May 14-16? If not, you should do so without further delay, using the accompanying reservation blank.

Headquarters for the meeting will be at the Netherland Plaza, one of America's finest hotels. Sessions of the House of Delegates will be held there, also all scientific sessions, section meetings, round-table conferences, and the educational and technical exhibits.

Hotel facilities in Cincinnati are splendid. However, members are urged to make reservations immediately in order to obtain the type of accommodations desired.

Requests for reservations should be addressed directly to the management of the hotel selected.

Following is a list of Cincinnati hotels, their location and room rates:

NETHERLAND PLAZA (Headquarters Hotel), Fifth and Race Sts. Single, \$3.00-\$10.00; double, \$5.00 to \$30.00.

HOTEL GIBSON, Fifth and Walnut Sts. Single, \$2.50-\$5.00; double, \$4.00-\$7.00; parlors, \$12.00.

HOTEL SINTON, Fourth and Vine Sts. Single, \$2.50-\$5.00; double, \$4.00-\$6.00; suites, \$6.00-\$10.00.

HOTEL ALMS, McMillan and Victory Parkway. Single, \$3.50 and up; double, \$5.00 and up.

HOTEL BROADWAY, Fourth and Broadway. Single, \$2.50 and up; double, \$3.50 and up.

HOTEL FOUNTAIN SQUARE, Fifth and Vine Sts. Single, \$2.50-\$3.00; double, \$3.50-\$4.00.

HOTEL KEMPER LANE, Kemper Lane and McMillan Sts. Single, \$2.50 and up; double, \$4.00 and up.

MARIEMONT INN, Wooster Pike and Madisonville Road. Single, \$1.75 and up; double, \$3.00 and up.

METROPOLE HOTEL, 609 Walnut St. Single, \$2.25-\$3.50; double, \$4.00-\$5.00.

PALACE HOTEL, Sixth and Vine Sts. Single, \$1.50-\$3.50; double, \$2.50-\$5.00.

HOTEL PARKVIEW, 108 Garfield Place. Single, \$2.50 and up; double, \$3.50 and up.

VERNON MANOR HOTEL, Oak and Burnet Avenues. Single, \$2.50 and up; double, \$3.50 and up.

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager..... Hotel, Cincinnati, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, May 14-16, 1940, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price:.....
☐ Twin Bed Room with bath ☐ Suite

Arriving May..... at A.M. P.M.

PLEASE VERIFY MY RESERVATION.

Name.....

Address.....

Kenwood Country Club, Cincinnati, To Be Scene of Annual Medical Golf Tournament on Monday, May 13

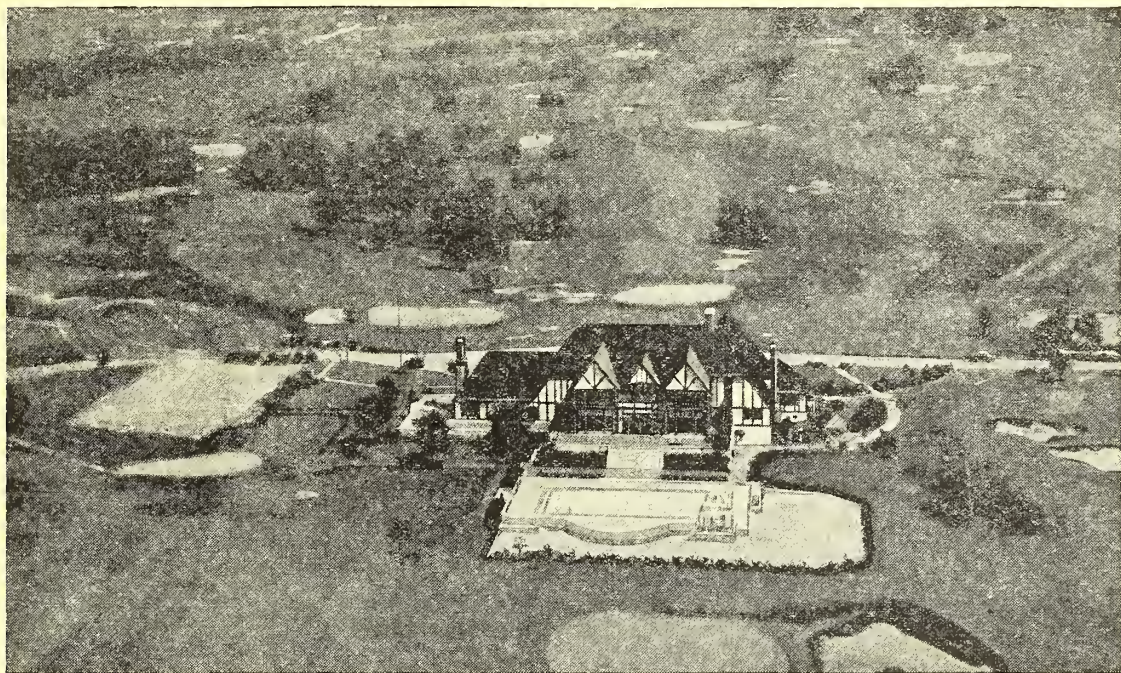
THE Ohio State Medical Golfers' Association will celebrate its twentieth year of tournament play at the Kenwood Country Club, Cincinnati, on Monday, May 13, the day before the opening of the Annual Meeting of the Ohio State Medical Association.

The Kenwood Club has two 18-hole courses. Both courses are beautifully laid out and will provide plenty of hazards on which to test the skill of all—and an opportunity for everyone to tee off early.

The last year's winners will be on hand to protect their trophies: J. J. Marek, the champion

ever; and that there will be prizes for just about every tournament entrant, be he "dub" or be he "expert".

The 1940 officers are as follows: F. T. Gallagher, Cleveland, president; E. C. Yingling, Lima, first vice president; D. C. Brennan, Akron, second vice president; H. H. Dorr, Columbus, third vice president; Valloyd Adair, Lorain, fourth vice president; J. J. Marek, Cleveland, fifth vice president, and Geo. W. Cooley, Executive Secretary, Toledo Academy of Medicine, secretary. The Cincinnati committee appointed by Dr. Gallagher to handle the tournament includes:



KENWOOD COUNTRY CLUB, CINCINNATI

(Marek won permanent possession of the Championship Trophy last year, but a new one will be awaiting the new champ); T. F. Heatley, DeWitt Trophy; D. R. Printz, Junior Trophy; E. C. Yingling, Grand-Dad's Trophy; W. A. Welsh, State Auto Mutual Insurance Trophy; Galen Bowman, Buckeye Union Casualty Trophy, and the Toledo Team, winner of the S. J. Coulter Trophy.

The local committee has served notice that the luncheon and banquet will be of a variety and excellence seldom equalled, that the "program of events" will include many new competitive features; that the entertainment will be the best

Ralph E. Hatfield, chairman; Clyde S. Roof, Chas. H. Moore, Frank H. Mayfield, Reed Shank, H. H. Shook, Ellis R. Rader, Leon Schiff, Anthony Hendricks, David Lyons, and Louis J. Feid.

Members of the Ohio State Medical Golfers' Association are urgently requested to fill out the card which has been sent to them and mail it to Secretary Cooley, 1420 Monroe Street, Toledo. A boost for the trophy fund is badly needed.

Those who are not at present members of the golfers' association may enroll for life by paying a fee of \$2.00. Checks should be made payable to the Ohio State Medical Golfers' Association and mailed to Mr. Cooley.

Many Special Attractions Arranged for Annual Meeting Visitors; Senator Taft Will Be Banquet Speaker

THE Ninety-Fourth Annual Meeting of the Ohio State Medical Association to be held at the Netherland-Plaza, Cincinnati, Tuesday, Wednesday and Thursday, May 14-16, will have a number of features that are worthy of special mention, in addition to the reference to them in the formal program appearing elsewhere in this issue of *The Journal*.

* * *

Annual Banquet—One of the highspots of the meeting will be the address of Senator Robert A. Taft, Cincinnati, at the Annual Banquet on Thursday evening, May 16. Following the usual custom, this function will be sponsored by the local academy and the invitation to Senator Taft was extended by the Cincinnati Banquet Committee. Since the Senator is a member of the U. S. Senate Committee on Education and Labor which conducted the hearings last year on the Wagner National Health Bill, his message on the evening of May 16 is eagerly awaited by the profession. The program will also include the presentation of the Past-President's gavel by Dr. Barney J. Hein, Toledo, Immediate Past-President, to the Retiring President, Dr. Parke G. Smith, Cincinnati; the introduction of the Incoming President, Dr. Wm. M. Skipp, Youngstown, and the President-Elect, Dr. William M. Doughty, Cincinnati, chairman of the Local Committee on Arrangements, will preside.

* * *

Physicians who wish to receive emergency calls from their offices during the Annual Meeting can arrange to do so through a special 24-hour telephone hookup provided through the courtesy of the Cincinnati Academy of Medicine. Such service can be obtained by having calls routed through Parkway 2345, the telephone number of the Academy. A special telephone and information desk will be located near the Registration Headquarters, and calls will be posted on a blackboard which can be readily seen by all who attend the meeting.

* * *

Women's Auxiliary—A meeting to organize a Woman's Auxiliary to the Ohio State Medical Association will open Wednesday morning, May 15, at 10 o'clock, in the Della Robbia Room of the Hotel Gibson. Members will recall that a resolution was adopted at the 1939 Annual Meeting at Toledo, instructing The Council to devise plans for the creation of such an organization "to be of assistance to the Association socially and educationally". Presidents of each of the county medical societies have been requested to appoint

the wife of a physician to represent that county at the initial meeting of the Woman's Auxiliary. The order of business includes consideration of a constitution and by-laws and election of officers. Second session of the Woman's Auxiliary will be at 1:30 Wednesday afternoon.

* * *

Medical Economics Conferences—Because of current interest in medical economics, the Committee on Scientific Work has set aside two general sessions for programs in that field.

A Conference on Medical Service Plans will be held from 4 until 5 o'clock, Tuesday afternoon, May 14, in the Pavillon Caprice of the Netherland Plaza. Dr. J. A. Hannah, managing director of Associated Medical Services, Inc., Toronto, Canada, will be the principal speaker. His address will be followed by a general discussion. Associated Medical Services was incorporated June 1, 1937, with the official blessing of the Ontario Medical Association, to offer complete medical, surgical, hospital and nursing service to those members of a community who were willing to budget for illness by paying regular monthly premiums. Physicians who have studied the Toronto plan agree that much of its success is due to the leadership of Dr. Hannah. For that reason, the Committee on Medical Service Plans of the State Association strongly urges that all physicians who attend the meeting make a special effort to attend this session.

On Wednesday afternoon from 4 until 5 o'clock, in the Pavillon Caprice, the Committee on Poor Relief is to conduct a Conference on Medical Programs for Recipients of Public Assistance. An interesting program for this session is being arranged by Dr. Walter K. Stewart, Youngstown, chairman of the committee. Charles L. Sherwood, state director, Department of Public Welfare, Columbus, will be one of the speakers.

* * *

Round-table Discussions—The Round-table Conferences which proved so popular at Toledo last year will be repeated at the Cincinnati meeting. The number has been increased to 20, ten from 2:30 to 4:00 Tuesday afternoon and ten at the same time on Thursday afternoon. This part of the program is in charge of Dr. Fred W. Dixon, Cleveland, member of the Committee on Scientific Work. Topics have been selected because of their current medical interest. Appreciating that the real worth of these conferences comes from a "free-for-all" discussion, no set program has been arranged. Physicians who can speak with authority have been assigned as leaders, their func-

Elaborate Program of Entertainment for Women Guests Attending 94th Annual Meeting at Cincinnati Arranged by Local Committees

WIVES of physicians who plan to accompany their husbands to the Annual Meeting in Cincinnati, May 14-16, need have no concern about what there will be for them to do while they are in Cincinnati. Under the general chairmanship of Mrs. Horace F. Tangeman, committees of wives of Cincinnati physicians have made elaborate plans for their entertainment.

The program for women guests will begin with a visit to the Taft Museum, at 2 o'clock, Tuesday afternoon, May 14, followed by a tea at 4:30 o'clock at the Town Club, Ninth Floor, Hotel Sinton.

At 10 o'clock Wednesday morning, May 15, the organization meeting of the Woman's Auxiliary of the Ohio State Medical Association will be held in the Della Robbia Room, Mezzanine Floor, Hotel Gibson. The next event is a luncheon at 12:30 o'clock at the Hotel Gibson, with the second session of the Woman's Auxiliary scheduled for 1:30 o'clock.

Wednesday evening at 7 o'clock a dinner, with entertainment, will be given at the Hotel Sinton, followed by bridge in the Rookwood Room. Arrangements have been made for a bus trip Thursday afternoon to the Greenhouses in Eden Park and the Rookwood Pottery, leaving the Hotel Gibson at 2 o'clock.

The Annual Banquet of the Ohio State Medical Association will be held at the Netherland Plaza at 7:30 P.M., Thursday.

All visiting women are urged to register at the Women's Registration Headquarters at the Hotel Gibson promptly after arrival. The registration desk will open at 10 o'clock Tuesday morning. A ticket which will entitle the holder to participate in the entire program of women's entertainment may be purchased when registering.

tion being to act as moderators, keeping the conferences open for free discussion, but holding the discussants down to the conference topic. Members who attend the Annual Meeting are advised to get their round-table conference tickets early. Attendance will be limited to 50 at each conference. The procedure for obtaining tickets is explained on page 424 of this issue of *The Journal*.

* * *

Educational Exhibit—The Educational Exhibit, one of the features of recent Annual Meetings, but omitted from the Toledo program because of lack of space, returns to the program this year. Arranged by Dr. Max M. Zinniger, Cincinnati, a member of the Committee on Scientific Work, the exhibit this year is on an invitational basis. Subjects of general and practical interest were chosen, and physicians requested to present exhibits who have special knowledge and experience in the subjects selected. Emphasis is placed on the educational value of the exhibits rather than on research.

* * *

As most members of the Association know, there is no charge for registration at the Annual Meeting. Expenses of the meeting are met by income derived from the sale of Technical Exhibit space. Most of the best-known manu-

facturers of surgical and pharmaceutical equipment and supplies and medical books will display their products in the spacious exhibit halls of the Netherland Plaza. Ample time has been provided in the program for physicians to visit the exhibits. They should do so, not only for the information (and samples) which they can obtain, but in appreciation of the exhibitor's participation in the meeting.

* * *

Special Luncheons—Special luncheons are being arranged for Wednesday and Thursday by a number of the sections and special societies. The Public Health Luncheon, under the auspices of the Section on Public Health and Preventive Medicine, is scheduled for Wednesday noon, in the Hall of Mirrors Foyer, Third Floor of the Netherland Plaza. Program for this luncheon session is printed in the Official Program, appearing elsewhere in this issue of *The Journal*.

Officers of the Section on Eye, Ear, Nose and Throat have arranged a luncheon session following the meeting of that section, Wednesday morning. Six 10-minute talks have been scheduled. They are: "Management of Corneal Ulcers Secondary to Upper Respiratory Infections", Dr. Louis E. Brown, Akron; "Symptoms Referable to the Eustachian Tube", Dr. Edward W. Harris, Columbus; "Newer Concepts in the Treatment

of Glaucoma", Dr. L. V. Johnson, Cleveland; "Treatment of Intracranial Complications of Mastoid and Sinus Disease", Dr. Frank Mayfield, Cincinnati; "The Role of Orthoptics in the Treatment of Phorias and Squint", Dr. Barnet R. Sakler, Cincinnati; "Surgical Treatment of Laryngeal Diphtheria", Dr. John D. Fouts, Dayton.

An effort is being made by the officers of the Section on Eye, Ear, Nose and Throat to have its luncheon in the same room in the Netherland Plaza where the section meeting will be held. Such an arrangement had not been consummated when *The Journal* went to press. However, a definite announcement concerning the location of this luncheon session will appear in the May issue of *The Journal*. All available information about other special luncheons will also appear in that issue.

The Section on Nervous and Mental Diseases will hold a luncheon session at the Netherland Plaza immediately after its meeting on Thursday morning. A general discussion will follow the luncheon.

* * *

Have you made hotel reservations for the Annual Meeting? If not, turn to page 440 this issue of *The Journal*, look over the list of Cincinnati hotels, fill out the attached coupon and mail it immediately to the manager of the hotel you choose. A letter from the management acknowledging your request for reservations is mighty handy when you step up to the hotel desk.

* * *

Special Invitations—Physicians attending the Annual Meeting are invited to visit the May Institute for Medical Research, a unit of Jewish Hospital, whose activities are restricted to experimental medicine and has a staff of 20 persons.

Among the problems that have been undergoing investigation in the Institute are: the influence of physiological and pathological states on peripheral blood flow, the factors responsible for the normal and abnormal electrocardiogram, the factors responsible for experimental hypertension, the influence of liver function on the oxidation of food stuffs, etiology of diabetic coma, the mechanism of acetone body formation and destruction, kidney function in diabetes, complement titer of blood, metabolic disturbances in various types of muscular dystrophies, the influence of the endocrine system on carbohydrate, fat and protein, and many other problems of similar nature.

Also Annual Meeting visitors are cordially invited to visit the Taft Museum, located at Fourth and Pike Streets, five blocks from the center of town. Former residence of Mr. and Mrs. Charles Phelps Taft, the museum was opened to the public in December, 1932, under

the management of the Cincinnati Institute of Fine Arts. Although small, its collection rivals in quality that of many larger and more celebrated museums. A magnificent series of portraits and landscapes by such masters as Rembrandt, Turner, Goya, Gainsborough and Corot, French Renaissance painted enamel plaques and dishes, jewelry and watches from many countries, and almost 200 Chinese porcelains are installed in a beautifully decorated period house which in itself merits the visitor's attention for its charm and authenticity. There is no charge for admission or for guidance which the management will be glad to furnish members of the Association either singly or in groups.

* * *

The Cincinnati Medical Women's Club invites all visiting women physicians to attend a dinner, Wednesday evening, May 15, 6 o'clock, at the Hotel Sinton. Reservations should be addressed to Dr. Dora F. Sonnenday, 145 W. McMillan St., Cincinnati.

Medical History Committee Will Meet on Friday, April 5

The Second Annual Meeting of the Committee on Archives and Medical History of the Ohio Archaeological and Historical Society will be held at the Archaeological Museum on the campus of the Ohio State University, Columbus, Friday afternoon, April 5, beginning at 1 o'clock. The program will be devoted to "Ohio Medical History of the Period 1835-1858". Dr. Jonathan Forman, Columbus, will preside. All persons, whether members of the society or not, are welcome to attend the meeting. The program follows:

1. Business meeting—Next year's program; our relation to American Association of Medical History; request of Ohio State Medical Association; election of officers for committee.
2. "Contributions of Ohio Physicians to the Inventions of the Period", Don Shira, M.D., Columbus.
3. "Thomsonianism in Ohio", Frederick Waite, Ph.D., Cleveland.
4. "The Rise of Homeopathy During the Period", Lucy Stone Hertzog, M.D., Chardon.
5. "The Introduction of Medical Instruments of Precision During the Period", Howard Dittrick, M.D., Cleveland.
6. "The Medical Journals of the Period", Jonathan Forman, M.D., Columbus.
7. "The Role of the District as a Unit in Organized Medicine and in the Administration of the Laws Regulating the Practice of Medicine", Robert G. Paterson, Ph.D., Columbus.
8. "Notes on Cholera in Southwestern Ohio", David Tucker, Jr., M.D., Cincinnati.
9. "Dentistry and Dental Education During the Period", Edward Mills, D.D.S., Columbus.

Annual Report of Judicial and Professional Relations Committee

DURING the past year the Judicial and Professional Relations Committee has been called upon to assist a number of component medical societies in revising their constitutions and by-laws and has reviewed for The Council amendments submitted by local societies for official approval.

The committee has noted a tendency on the part of some county medical societies to include an excessive amount of detail in their constitutions and by-laws. This is not a wise procedure.

The constitution and by-laws constitute the organic law governing the affairs of a society and the conduct of its members. Obviously, such a document must be definite on certain matters. On the other hand, many of its provisions must be general in scope. It must be fairly flexible. If its provisions are carefully formulated, even though they may be general in character, they will be applicable to whatever specific instances may arise.

Last Fall in submitting a special report to The Council of the State Association, this committee made these observations which it believes are sound and logical:

AVOID EXCESSIVE DETAIL

"The committee recognizes the fact that each component society has a right to include in its constitution and by-laws any provision which may seem desirable to that society, provided it does not conflict with provisions of the Constitution and By-Laws of the Ohio State Medical Association. Nevertheless, the committee believes that inclusion of unnecessary provisions and excessive details frequently causes confusion in interpretation and is a hindrance rather than a help toward good organization procedure.

"The committee feels that the constitution and by-laws of any society should contain only basic provisions and that such documents should not attempt to perform judicial and administrative functions, which responsibility should be left to the proper judicial and administrative agencies of the society. A constitution and by-laws should consist of provisions and language which are easily understood and easily interpreted in order to make such a document workable and to avoid confusion when such provisions have to be applied."

SOME POINTED SUGGESTIONS

Based on its observations, the committee has compiled the following suggestions which may be helpful to a component medical society when revision of its constitution and by-laws is contemplated:

1. Each local constitution and by-laws must be kept in conformity with the Constitution and By-Laws of the Ohio State Medical Association. Conflicting provisions cannot be approved by The Council.

2. Proposed amendments should be drafted carefully and adopted only after thorough study.

3. No amendment can become operable until after it has received the official approval of The Council of the State Association.

4. Committees on constitutional revision might find it advisable to confer with the Judicial and Professional Relations Committee of the State Association during their deliberations in order to obtain advice and interpretations before submitting a final report.

5. A constitution and by-laws may have to be revised periodically but not frequently. The "model" county society constitution and by-laws issued in 1930 by the State Association and adopted by most of the component societies, is basically sound and practical. Its provisions are still broad enough to meet almost every conceivable situation.

6. Flexibility should be given to provisions relating to administration of society activities. Provisions prescribing the duties and activities of officers and committees should be general and broad in scope so as not to handicap them in their work.

7. Avoid inserting amendments to meet isolated situations. Something believed practical today may prove antiquated a year hence. If basic provisions are general enough in scope they can be applied to many different kinds of cases.

8. Don't write in details which may need modification from time to time to meet changing conditions, for example, a specific amount for annual dues. Permit the council or executive board to set the annual dues contingent on approval by the society. Also, don't try to cover all committee appointments and committee work through regulations in the by-laws. Give the president and executive board considerable discretion in this matter. It is best to have few, but active, continuing committees and to appoint special committees which die automatically after their work is done.

9. Three of the most essential provisions of a constitution and by-laws are the following: Membership eligibility and admission to membership; disciplinary action; and keeping of adequate records of society activities. Caution should be used in drafting these provisions and in revising them.

10. Avoid inserting special rules of conduct.

There is no need for them. Their use only complicates and sometimes defeats an already difficult situation. The Principles of Medical Ethics are broad and fundamental enough to cover any situation which may arise warranting disciplinary measures.

11. When the question of amending a constitution and by-laws is under consideration, give all members an opportunity to study the proposals and to debate them as fully as they may desire. "Railroading" of amendments usually becomes a boomerang.

12. Every proposed amendment should be studied from three angles: (1) On its own merits; (2) whether it is consistent or in conflict with other provisions of the constitution and by-laws; and (3) whether it is in conformity or in conflict with the Constitution and By-Laws of the State Association.

13. Avoid language and construction which is complicated and not easily understood. Proper decisions and interpretations cannot be made if there is disagreement as to what a particular provision means.

14. Remember that a medical society is a democratic organization. It needs guiding principles and basic regulations to govern its activities. On the other hand, a certain amount of discretion should be given to the membership and it should be given the privilege of conducting its affairs without being hamstrung by an unreasonable amount of legal or parliamentary red-tape. In most instances when a county medical society finds itself confronted with difficulties or internal strife, the cause is not weakness in its constitution and by-laws but faulty administration or personal bickerings on the part of a few members.

15. Remember, also, that a perfect constitution and by-laws is of little real value unless the members of a society are acquainted with its provisions and strive to abide by its provisions; and its provisions are properly administered.

WARNING ON DISCIPLINARY ACTION

Although the Judicial and Professional Relations Committee has not had to consider any questions involving disciplinary action against members during the past year, it realizes that such situations may arise during the ensuing 12 months. For that reason it wishes to caution all county medical societies that there are certain basic principles which must be observed when disciplinary action is contemplated or taken. If this warning is heeded, many complications and embarrassments can be avoided.

Several years ago the Judicial Committee of The Council, predecessor of the Judicial and Professional Relations Committee, prepared a statement on disciplinary action to guide officers of county medical societies. Some of the important

recommendations made in that bulletin were as follows:

PROPER PROCEDURE OUTLINED

1. Disciplinary action should originate in the component medical society of which the accused physician is a member. The Council of the Ohio State Medical Association has no authority to suspend or expel a member unless a component society fails to do so after being so requested by The Council. The Council is a court of appeals.

2. Rules of procedure for the disciplining of a member are set forth in the constitution and by-laws of each component medical society and in the Constitution and By-Laws of the State Association. They should be followed scrupulously to prevent reversal of the society's action in case appeal is taken. (Chapter Eleven, By-Laws, State Association.)

3. Charges preferred against a member should be specific. They should state wherein the constitution and by-laws of the society or the Principles of Medical Ethics have been violated. A general charge of unprofessional conduct is not sufficient.

4. Charges should be preferred in writing and signed by the person or persons making them.

5. A definite time should be set for a hearing before the official body of the society specified in the by-laws as the agency to investigate charges against members.

6. Notification of the time of the hearing and a copy of the charges should be transmitted to the accused by personal delivery or by registered mail, receipt demanded.

7. Reasonable time should be granted the accused to prepare his defense. He should be given an opportunity to appear at the hearing in person, if he so desires, to defend himself.

8. The hearing or trial should be held at the time and place stated in the notification sent to the accused. If for any reason the time or place is changed, notice of such change should be delivered to the accused, receipt of notice being demanded, then he should be given ample time to adjust his personal affairs to comply with the new instructions. Usually, ample time means "two weeks".

9. Evidence submitted at the hearing or trial should be confined to the specific charges.

10. A complete report (stenographic desirable) with copies of exhibits, should be made and kept on file.

11. Judgment should be based only on testimony concerning matters specified in the charges.

12. Both the trial court and the accused should have the right to summon witnesses to testify at the trial. Members of the trial court, or a "prosecutor" (a member) appointed by the court should have the right to examine and cross-examine the accused and the various witnesses. The accused

should have the right to examine and cross-examine witnesses. None but members of the society should have the privilege of attending and participating in the hearing.

13. After the hearing is completed and after due deliberation, the trial court should return its verdict in writing to the society at a regular meeting or at a special meeting of the society called for that purpose. (Some societies provide that disciplinary action shall be handled by the executive board or council.)

14. The accused should be notified of the time and place of the meeting at which the verdict of the trial court will be considered and his presence requested. The accused should be permitted to speak in his own defense at such meeting, unless specifically denied that right under the by-laws.

15. In presenting its verdict the trial court should (1) declare that it has found the accused "guilty" or "not guilty" of the charges and (2) if a verdict "guilty" is rendered, recommend censure, suspension or expulsion.

16. After the verdict and recommendations of the trial court have been presented, they should be submitted to a vote of those in attendance in strict accordance with the provisions of the by-laws.

17. As soon as convenient after the meeting, the president or secretary of the society should inform the accused of the official action of the society.

18. When disciplinary action is started, a notice should be filed with the State Headquarters Office at Columbus for the information of The Council. Provisions of Sections 4 and 5 of Chapter Eleven of the By-Laws of the Ohio State Medical Association should be complied with by all component societies in actions disciplining a member.

MALPRACTICE SUGGESTIONS

One function of the Professional and Judicial Relations Committee is to advise members regarding the medical aspects of malpractice cases and to carry on a program of education and prevention with respect to malpractice threats and suits. Here are some suggestions based on information assembled from various authentic sources which should be carefully considered and followed by all physicians:

First—Every physician should protect himself against the hazards of suits for alleged malpractice by obtaining professional liability insurance from companies of sound financial rating and good reputation. Incidentally, most professional liability insurance companies are refusing to issue a policy to a physician who is not a member of his local and state medical societies—one of many reasons why a physician should not let his membership in medical organization lapse.

Second—Obviously, prevention of suits and

threats is the best protection which a physician can obtain. Some of the important points which every physician should keep in mind and follow to protect himself and his colleagues from actions for alleged malpractice are as follows:

1. Office assistants such as nurses, technicians, etc., should be carefully selected and should not be permitted to render services to patients without the physician's presence and supervision.

2. Every physician should keep complete and accurate case records, including a record of instructions given to the patient at each visit.

3. X-ray pictures should be taken and carefully filed in all fracture cases, or where the nature of the injury indicates there might have been a fracture, if it is at all possible to secure an X-ray examination at the time of the injury or shortly thereafter.

4. Written consent from the patient who is to undergo an operation is desirable, though not necessarily essential. A written consent or written order from the properly constituted authority to perform an autopsy is necessary.

5. In cases where the physician recommends some particular method of treatment or procedure and the patient refuses to submit, the patient should be asked to sign a statement to that effect. Incidentally, agreements purporting to release the physician from liability for negligence, executed before treatment is commenced, are of little or no legal effect.

6. Every physician should guard against making derogatory remarks, deliberately or unintentionally, concerning a fellow practitioner, keeping in mind that his remarks may be used as the basis of a suit for alleged malpractice; that one malpractice suit may start an epidemic; and that he may be the next victim.

* 7. Suits to collect fees frequently precipitate malpractice actions, especially in instances where favorable results were not obtained or for any reason the patient is dissatisfied. Pressure to collect accounts should not be exerted until the statute of limitations can be used as a defense in case of suit for alleged malpractice.

8. Physicians should have office equipment, especially electrical equipment, inspected periodically and modern safeguards installed. Faulty equipment has been the source of many malpractice suits. Do not leave the patient alone while undergoing mechanical treatment.

9. Containers for solutions used in office practice should be carefully marked and extreme care should be exercised in selection of the solution to be used. Use of a wrong solution may cause a disagreeable situation for a physician and a suit difficult to defend.

10. Use of unusual or not generally accepted procedures (experimental) is dangerous from a liability standpoint and should not be undertaken

unless under proper control in connection with scientific research conducted by bona fide organizations and institutions.

STATUTES OF LIMITATIONS

Third—Knowledge of the statutes of limitations which establish the time within which suits against physicians must be commenced to permit recovery of damages is important. The physician may be confronted with two classes of actions: (1) Causes of action based upon injuries which do not produce death and (2) causes of action based on alleged wrongs which result in death. Ordinary malpractice actions (those which do not produce death) must be commenced in Ohio within one year from the time the relation between physician and patient terminated. An action for wrongful death must be brought within two years from the time of death. In the case of minors, the statute of limitations does not begin to run until the person has reached his or her majority. For example, a child injured at the age of two years through the alleged negligence of a physician can maintain a malpractice action any time within one year after reaching his or her legal majority.

LEGAL DUTIES AND RESPONSIBILITY

In conclusion, the committee wishes to comment briefly on the question of a physician's legal duty and responsibility in treating his patients. Although the physician may at times be under a moral obligation, he always has the legal right to elect whether or not he will accept employment in any given case. However, if a physician accepts a case he is legally bound, and bound by the Principles of Medical Ethics, to continue service until, according to his best judgment, he decides that the patient is no longer in need of medical attention; until he is dismissed by the patient; or until he discharges himself for substantial cause, after giving the patient reasonable notice of his intention so that the patient may arrange for other medical service. Of course these obligations may not apply if there is an expressed agreement between the physician and patient, "assuming that they have dealt with one another on the basis of such a contract as justice and reason would dictate", as one authority has put it.

If planning a prolonged absence from his practice, a physician should properly notify his patients if at the time they are actively under his care, so that they may secure the services of another physician of their own choice or consent to having him arrange for such services during his absence. Even during temporary absences, it is advisable for a physician to arrange with some colleague to care for his patients in emergencies. In selecting a substitute, a physician should be certain that the substitute is competent and reliable.

The question of care and skill is most impor-

tant. When a physician accepts a case he impliedly contracts to exercise that degree of care and skill customarily used by other physicians of that community under similar circumstances and conditions. If a physician holds himself out to be a specialist, the courts may expect him to exercise a greater degree of skill than is required of the general practitioner. The physician should be careful in giving proper instructions to his patients. He should not promise or guarantee results. Since a physician must meet certain standards of care and skill, he must keep abreast of medical progress.

LESLIE L. BIGELOW, M.D., Columbus,
Chairman,

HOWARD D. FABING, M.D., Cincinnati,
J. E. TUCKERMAN, M.D., Cleveland,
G. A. WOODHOUSE, M.D., Pleasant Hill,
JAS. G. KRAMER, M.D., Akron.

Mahoning County Postgraduate Day Scheduled for April 24

Many Ohio physicians are planning to attend the Thirteenth Annual Postgraduate Assembly of the Mahoning County Medical Society, Wednesday, April 24, at the Hotel Ohio, Youngstown. The program is to be given by a group from Johns Hopkins University School of Medicine, Baltimore, Md. They are: Dr. Warfield M. Frior, chief of surgery; Dr. Richard W. TeLinde, professor of gynecology; Dr. Benjamin M. Baker, associate in medicine, and Dr. Lloyd G. Lewis, chief of genito-surgery. The following are the subjects to be discussed:

1. "The Causes of Post-Menopausal Bleeding", Dr. TeLinde.
2. "The Effect of Treatment of Headache", Dr. Baker.
3. "The Neurological Diseases of the Urinary Bladder", Dr. Lewis.
4. "Practical Aspects of Endocrinology", Dr. TeLinde.
5. "Consideration of Acute Circulatory Collapse", Dr. Baker.
6. "Urological Significance of Hematuria", Dr. Lewis.
7. "The Prevention and Treatment of Tetanus, with Special Emphasis on the Use of Toxoid", Dr. Frior.

Trips to the Altar

Recent marriages of Ohio physicians include the following: Mrs. C. Burns Craig, New York City, and Dr. A. D. Frost, Columbus; Miss Myrtle Hatchell, Daytona Beach, Fla., and Dr. John L. McClintock, Cadiz; Miss Louise Koester, Toledo, and Dr. J. Edward Hershberger, Dayton; Miss Arria Morison, Boston, and Dr. David R. Weir, Cleveland; Miss Marcia Jane Dierks, Toledo, and Dr. F. W. Kaylor, Bellefontaine.

**ANNUAL AUDIT OF BOOKS OF THE OHIO STATE MEDICAL ASSOCIATION AND THE
OHIO STATE MEDICAL JOURNAL FOR YEAR ENDED DECEMBER 31, 1939, BY
KELLER, KIRSCHNER, MARTIN AND CLINGER, CERTIFIED PUBLIC
ACCOUNTANTS, COLUMBUS, OHIO.**

THE ASSOCIATION

EXHIBIT A—Statement of Cash Receipts and Disbursements.

Cash on deposit at January 1, 1939	\$ 1,368.57
Certificates of deposit	7,000.00
United States Treasury Bonds	70,000.00
Total cash and bonds at Jan. 1, 1939	\$ 78,368.57

RECEIPTS

Membership dues—1939

6,270 at \$5.00	\$31,350.00
51 at \$3.00	153.00
67 at \$2.00	134.00

Total 1939 membership dues	\$31,637.00
1938 dues received in 1939	34.00

Total membership dues	\$31,671.00
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Other receipts:

Bank loan*	5,000.00
Annual meeting receipts	3,487.50
Interest on investments	2,466.19
Telephone refund	82.27
Miscellaneous	21.25

Total receipts	42,728.21
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Total to be accounted for	\$121,096.78
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DISBURSEMENTS

Ohio State Medical Journal	\$12,000.00
Executive Secretary—salary	6,000.00
Executive Secretary—expense	782.79
Asst. Exec. Secy.—salary	4,600.00
Asst. Exec. Secy.—expense	582.10
President's expense	192.79
Treasurer's salary	300.00
Council expense	943.89
Payment of loan obtained in 1938	4,000.00
Annual meeting	2,900.53
Bureau of Public Education	3,055.26
Committee on Public Relations	1,267.17
Postgraduate lectures	2,176.66
American Medical Assn. delegates	248.85
Postage, telephone and telegraph	1,999.11
Rent	2,040.00
Stenographers—salaries	2,431.50
Unemployment insurance	405.76
Stationery, printing, and supplies	1,072.20
Miscellaneous committee expense	259.52
Special legal services	1,792.70
Auditing	100.00
Dues and subscriptions	45.30
Interest	41.67
Employees' bonds	30.00
Liability insurance	40.00
Industrial insurance	15.42
Miscellaneous expense	59.35

Total disbursements	\$ 49,382.57
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Cash on deposit, certificates of deposit, and bonds at Dec. 31, 1939	71,714.21
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Total accounted for	\$121,096.78
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EXHIBIT B—Statement of Cash and Bond Reconciliation at December 31, 1939

The Huntington National Bank

Balance as shown by bank certificate at Dec. 31, 1939	\$ 2,051.00
Less checks outstanding	336.79

Balance of cash as shown by the books at Dec. 31, 1939	\$ 1,714.21
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United States Government Bonds

U. S. Treasury Bonds	70,000.00
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Total balance as shown by the books at Dec. 31, 1939	\$ 71,714.21
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THE JOURNAL

The financial condition of The Ohio State Medical Journal at December 31, 1939, (shown in detail in Exhibit A), was as follows:

Current assets	\$ 2,673.82
Less current liabilities	43.50
Net current assets	\$ 2,630.32
Property assets	2,687.67
Total net assets	\$ 5,317.99

The above is represented by:

Surplus	\$ 5,317.99
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EXHIBIT A—Balance Sheet at December 31, 1939

Current Assets

Cash—The Ohio National Bank	\$ 2,065.29
Cash—petty	10.00

Total cash	\$ 2,075.29
Accounts receivable	598.53

Total current assets	\$ 2,673.82
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Property Assets—Furniture and fixtures (depreciated value)	2,687.67
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Total Assets	\$ 5,361.49
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Current Liabilities

Subscriptions prepaid	\$ 43.50
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Surplus

Surplus at January 1, 1939	\$ 3,889.08
Add—Excess of revenue over expense for year ended Dec. 31, 1939	1,428.91

Surplus at December 31, 1939	5,317.99
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Total Liabilities and Surplus	\$ 5,361.49
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EXHIBIT B—Statement of Revenue and Expense

Revenue

Advertising	\$ 12,376.94
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Less:

Commissions on advertising	\$ 663.63
Cash discount	400.91

Advertising—net	\$ 11,312.40
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Circulation	12,185.05
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Total revenue	\$ 23,497.45
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Expense

Journal printing	\$14,698.87
Office salaries	5,370.51
Journal postage	754.67
Illustrations and engravings	206.22
Bad debts	.50
Depreciation	250.55
Dues and subscriptions	39.50
Clipping service	78.00
Journal envelopes	525.13
Office supplies and expense	144.04
Bank service charges	.55

Total expense	22,068.54
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Excess of revenue over expense for the year ended Dec. 31, 1939	\$ 1,428.91
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EXHIBIT C—Statement of Cash Reconciliation at December 31, 1939

The Ohio National Bank

Balance as shown by bank certificate at December 31, 1939	\$ 2,108.00
Less outstanding checks	42.71

Balance as shown by the books at December 31, 1939	\$ 2,065.29
Add—petty cash	10.00

Total cash	\$ 2,075.29
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*On November 11, 1939, a sixty-day loan in amount of \$5,000.00 was obtained by the Treasurer from the Huntington National Bank, Columbus, for the purpose of completing payment of 1939 expenses without necessity of sacrificing income by liquidation of investments.

Women's Field Army Launches State-Wide Educational and Membership Campaign; Peak To Be April 17-24

ALL Ohio physicians are urged to lend their support to the April membership drive of the Ohio division of the Women's Field Army of the American Society for the Control of Cancer. With April designated by Congressional enactment as National Cancer Control Month, special efforts will be put forth by all officers of the Field Army during the next 30 days to arouse Ohioans' interest in the campaign to save lives through education. The campaign will reach its peak during the week of April 17 to 24, according to Mrs. G. A. Vincent of Bloomdale, state commander.

The membership goal set by the Ohio division for 1940 is 15,000. A \$1.00 enlistment fee is charged, the money collected being used to prepare the educational material on cancer which is distributed in large quantities by the Field Army.

USE PRESS, RADIO, PLATFORM

The Field Army in Ohio will utilize every available means of arousing public interest in its April campaign. The cooperation of newspaper editors will be solicited, and publicity articles will be prepared for the press. From the speaker's rostrum both physicians and members of the Army will appeal to public audiences for support of the program of lay education for cancer control. Radio broadcasts will carry the message to thousands of listeners, time for the programs being donated by Ohio stations as part of their public service features.

The Ohio division maintains a large supply of various pieces of printed matter intended for lay consumption. Through its various official or affiliated channels it distributes attractively written and illustrated pamphlets and folders containing scientifically accurate information about cancer. Some of the folders now on hand have been printed in cooperation with the Ohio Department of Health, and others were obtained from the national offices of the American Society for the Control of Cancer. In all its educational efforts the Field Army stresses two main themes: The five well-known "cancer warnings," and the importance of consulting a competent physician as soon as one of the early symptoms is detected. It also aims to dispel falsely founded fears about the disease and dispose the quackery which impedes the progress of its control.

EDUCATIONAL MATERIAL MAILED

As a preliminary to its annual Spring drive the Field Army recently mailed representative pieces of its educational material to the presidents of all county medical societies in Ohio. These illustrated the type of literature which is distributed by the Army as part of its program

to educate the public away from fear and ignorance about cancer. Accompanying the pamphlets was the Ohio division's annual report, showing what had been accomplished in 1939 through such education mediums as newspapers, radio broadcasts, and fair exhibits.

With approval of The Council of the Ohio State Medical Association the Field Army in Ohio has been organized in districts corresponding to the State Association's councilor districts. In this way its cooperation with the medical profession is facilitated. Vice commanders are in charge of district activities, special vice commanders direct the program in large cities, and captains head the county organizations. The following Field Army officials are leading the April enlistment campaign:

LEADERS IN CAMPAIGN

District One—Mrs. Clarence Telfair, of Wilmington, vice commander; Mrs. Hamilton Fra-zine, special vice commander for Cincinnati; Mrs. J. L. Peurifoy, of Hamilton, Butler County captain; Mrs. Nina E. Long, of Middletown, co-captain; Mrs. Harold Nichols, of Batavia, Clermont County captain; Mrs. Edward Powell, of Hillsboro, Highland County captain.

District Four—Mrs. Grace Bower, of North Baltimore, vice commander; Mrs. Oscar Buchanan and Mrs. Walter Gillen, both of Paulding, Paulding County co-captains; Mrs. Joe Labadie, of Ottawa, Putnam County captain; Mrs. William Schaufele, of Defiance, Defiance County captain; Mrs. Anna Shanower, of Bowling Green, Wood County captain; Mrs. Ralph E. Lindsey, of Bryan, Williams County captain; Miss Ann Houck, of Toledo, special vice commander for Toledo and Lucas County; Mrs. J. C. Downey, of Genoa, Ottawa County captain; Mrs. B. C. Tobias, of Fremont, Sandusky County captain.

District Five—Mrs. Irving Waterbury, of Bedford, vice commander; Mrs. Marguerite Tremain, of Cleveland, special vice commander for Cleveland and Cuyahoga County; Mrs. Fred Miller, of Chagrin Falls, Geauga County captain; Mrs. L. A. Hagerty, Bedford captain; Mrs. Thornton Round, Garfield Heights captain; Mrs. A. E. Hatfield, Maple Heights captain; Mrs. N. F. Harmon, Parma captain.

District Six—Mrs. Myron S. Baker, of Hiram, vice commander; others to be named later.

District Nine—Mrs. W. B. Lacock, of Logan, vice commander and captain for Hocking County; Mrs. O. E. Vollenweider, of McArthur, Vinton County captain; Mrs. W. H. Swartz, of Portsmouth, Scioto County captain.

District Ten—Miss Amanda Thomas, of Columbus, vice commander; Mrs. J. Earl Gidding, of Washington C. H., Fayette County captain.

District Eleven—Mrs. R. F. Fasoli, of Lorain, vice commander; Mrs. F. C. Billing, of Elyria, Lorain County captain; Mrs. Norman Rease, of Brunswick, Medina County captain; Mrs. Dennis Hiner, of Wooster, Wayne County captain; Miss Edith Low, of Millersburg, Holmes County captain, and Mrs. Harry Gill, of Ashland, Ashland County captain.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Those members who are interested—every member should be—in getting a comprehensive picture of the activities of the Ohio State Medical Association since the

Want to Know What's Going On? Read the Annual Reports!

1939 Annual Meeting last May and in reviewing the many services performed by the Association for its 6,500 members during the past year, should read the annual reports of the various committees, published in this issue.

In preparing their reports, the committees of the State Association have tried to present an interesting and informative review of their work. In doing so they have in effect written a history of the Association for the past year, as practically all of the activities of the Association, with the exception of the personal services rendered by the State Headquarters Office staff, originate in some committee of the Association.

Obviously, the reports printed in this issue will not be worth the white paper consumed if they are not read by a considerable proportion of the membership. Those who want to keep abreast of events and developments affecting medical practice and the medical profession will find them valuable. County society officers and committeemen who have large responsibilities in providing leadership for the medical profession in their respective communities should regard the reports in the aggregate as a handbook on principles, policies and activity.

No organization can function properly without active and alert committees. The Ohio State Medical Association has been extremely fortunate in this respect during the past year. There is no way of evaluating the time and effort expended by the committees of the Association in the interests of the physicians of the state, individually and collectively. However, the flat statement may be made that all of them have done their work well and met their responsibilities. The same should be said of The Council, which offers no annual summary of its work inasmuch as a review of Council activities is presented from time to time in *The Journal*.

Any who may feel that medical organization is not equipped to meet problems which confront the medical profession and is not meeting scores of issues in an effective manner will find the reports in this issue a real tonic. In fact careful reading of them surely will convince the most rabid skeptic that whatever weaknesses may be present are due to inertia and lack of interest on

the part of those, including himself, who find it so much easier to pass the buck than to roll up their sleeves and pitch into the work to be done.

It is not unscientific, as some scientists seem to believe, for even a scientist to make his meaning clear.—Albert E. Wiggam.

In the March issue of *The Journal* announcement was made that the members of the Committee on Medical Service Plans of the Ohio State

Conference on Medical Service Plans Held in 9th, 5th Districts

Medical Association, in cooperation with members of The Council, were planning a series of district meetings for

the purpose of discussing with officers and key committeemen of the county medical societies the question of group medical service plans and proposed enabling legislation as a basis for inauguration of such plans in certain communities of Ohio.

Up to the time this issue went to press two of the series of 11 meetings had been held. Under the direction of Dr. I. P. Seiler, Piketon, Councilor of the Ninth District, and Dr. Dow Allard, Portsmouth, member of the Committee on Medical Service Plans, a well-attended meeting was held at Jackson on Sunday, March 17. On the same day, another well-attended conference was held at Painesville, with Dr. E. P. McNamee, Cleveland, Councilor of the Fifth District; Dr. R. M. Watkins, Cleveland, member of the Committee on Public Relations and Economics, and Dr. John E. Rauschkolb, Cleveland, member of the Committee on Medical Service Plans, in charge.

Plans for similar meetings in the other Councilor Districts are progressing. Such meetings probably will be held before April 14 when the Committee on Medical Service Plans will meet in Columbus to receive reports on the district conferences and lay plans for future committee work.

The meetings held to date have revealed much interest on the part of those invited to attend—county society officers, legislative committeemen and delegates to the State Association—in the question of medical service plans and the possibilities of preparing the groundwork for such plans in Ohio where the medical profession wishes to start a plan.

The Committee on Medical Service Plans is to be congratulated on having decided on a sound

approach to this important question. Education of the membership is the first big step. The method adopted appears to be sound as those attending the district meetings will be expected to discuss the question with the membership of their respective county medical societies and in this way develop concerted backing for proposed enabling legislation and other aspects of the whole venture.

The best program for medicine should be the product of the best minds of the American people. I propose that it be written by physicians, and when approved by organized medicine that it be submitted to Congress. I believe that we should try to find an American Way—built upon the sound foundations of American experience.—Nathan B. Van Etten, M.D., President-Elect, American Medical Association.

Close scrutiny of all proposals for Federal aid to education is urged by Dr. Ward G. Reeder, professor of education, Ohio State University, according to the *Columbus Dispatch* which quotes him as follows: "Because of the dangers of establishing a federal bureaucracy, of pauperizing the states, and of increasing waste in school management, all such proposals should be carefully scrutinized," he says.

"The recent tendency for states and local communities to regard Uncle Sam as a perpetual Santa Claus must be stopped if democracy is to survive.

"For school officials and employees of the nation to request that the schools be given federal aid without any federal control is unadulterated nonsense. Federal control has never failed to follow federal aid."

That Professor Reeder has spoken a mouthful will be attested to by those who have a working knowledge of how present Federal programs operate—the health and welfare programs for example. Local communities may pat themselves on the back every time they are able to get another slice of Federal money for local health and welfare activities but in doing so they fail to take into consideration that they have given up another chunk of that intangible asset known as the right to run their own affairs. Those putting up the money write the ticket on administrative standards and how the cash is to be spent. You can bet on that. As long as cities and counties keep on not giving a hang about it, bigger subsidies and more control from Washington may be anticipated.

The more is given the less the people will work for themselves, and the less they work the more their poverty will increase.—Leo Tolstoi in 1892.

Although it may rank as tops when it comes to climate and scenic wonders, California has a record on legislative matters which no other state cares to duplicate.

Don't Sign Petitions It has become a truism that most crack-pot proposals have their origin in that state.

Blindly! Analyze Each Proposal on Its Merits

The only reason for citing these facts is that in so doing an opportunity is offered to caution Ohio citizens generally, and physicians especially, that Ohio promises to become another California three-ring circus unless they adopt a policy of giving the cold shoulder to most of the peddlers of petitions for the initiation of proposed constitutional amendments and laws.

Promoters of schemes to amend the Ohio Constitution under the initiative and referendum system seem to be planning to use it this year in a big way. According to the files of Secretary of State Earl Griffith, 20 proposals to amend the Ohio Constitution by popular vote this Fall have been reviewed by his office, including another pension proposal sponsored by the Rev. Mr. Bigelow. Petitions for some of these measures are in circulation now.

Physicians as citizens should be wary of signing petitions of this character and should encourage their friends to follow this course. The initiative and referendum may have its place in a democratic system but it was not meant as a vehicle to be used by supporters of unsound and dangerous proposals. Indiscriminate petition signing is a hazardous thing.

It will be agreed that there are many other factors than socialized medicine to explain health conditions in Germany and other European countries; but the stubborn fact remains that the socialization of medicine was the entering wedge for totalitarianism in Germany and in Russia.—North Carolina Medical Journal.

April promises to be a big month on the political front. With candidates for party nominations swinging into full stride, plenty of action may be anticipated

Get Acquainted With the Candidates For Public Offices Now!

between now and the Primary Elections on May 14.

There is every reason to believe that the elections in 1940 may be recorded as the most important in the history of this country. Therefore, it would be ridiculous for the medical profession to sit on the sidelines while others participate in pre-election activities—especially when the medical profession has such a big

**BE SURE TO VOTE IN PRIMARIES BEFORE YOU LEAVE FOR 1940
ANNUAL MEETING, OPENING MAY 14—PRIMARY ELECTION DAY;
INSTRUCTIONS FOR VOTING BY ABSENT VOTER'S BALLOT**

Primary election day in Ohio this year will be May 14 because in presidential election years the second Tuesday in May, instead of the second Tuesday in August, is set by law as the date for the party primaries. The date this year falls on the opening day of the Annual Meeting of the Ohio State Medical Association at Cincinnati. This does not mean that physicians in attendance must forfeit their right to vote. They may vote, and should, under the provisions of the election laws pertaining to absent voters.

Section 4785-134 of the General Code reads as follows:

"Any qualified elector of the state who finds that he will be unavoidably absent from the county on the day of holding any primary, general, or special election, provided, however, that such absence from the county must be at a distance of more than fifty miles from the precinct in which he is a qualified elector, may vote at any such election in the manner as hereinafter provided."

The law provides that any elector referred to above can, not more than 30 days prior to the primary, nor later than 6:30 P.M. of the Thursday preceding the date of the primary, make an application in person or in writing to the clerk of the county board of elections, for an official ballot to be voted at such election. If the elector appears in person at the office of the board, he can fill out the application, obtain the ballots and cast his vote at the time of his appearance. If he makes his request by mail, the ballots will be sent to him by registered mail. After he has marked the ballots, he must return them to the county board of elections by registered mail, in an envelope provided for that purpose. All such envelopes must be in the hands of the clerk of the board not later than 12:00 o'clock noon, Friday, May 10.

stake in the ultimate outcome of events and developments now present or anticipated.

There are several things which every physician can and should do:

1. Get the names of those running for public offices—especially the names of candidates for Congress and the Ohio General Assembly.
2. Get accurate information regarding all candidates—their qualifications for the office sought and their views on medical and health matters.
3. Exchange information obtained with other physicians so that all will be well-informed on these matters.
4. Vote, and see that others do so. In this connection, all members should read the two-column box published, appearing on this page, regarding regulations for voting by absent-voter's ballot. Unfortunately, the primaries this year and the opening of the Annual Meeting of the State Association at Cincinnati are on the same day—May 14. Some physicians undoubtedly will have to make use of the absent voter's privilege.

It is important for every voter, every group such as the medical profession, to make known to candidates their views on questions in which they are interested. The most appropriate time is

before election day, when candidates are in an especially receptive mood.

We hope that it will not be necessary to issue a challenge to Ohio physicians such as the following published in *The New York State Medical Journal* to awaken New York physicians about activities of the New York Legislature, now in session:

"Although the State Legislature has power to alter the form and scope of medical practice, few physicians bother to communicate their views to their representatives at Albany. This apathetic attitude shows a surprising indifference to the fate of their profession. There are many occasions on which an unmistakable expression of professional opinion would have a decisive effect on the course of legislation affecting medicine. Yet the average practitioner is satisfied to sit back and let outside influence shape his destiny.

"Politicians (and legislators are necessarily politicians) respond to the expressed will of the voters. When a group of citizens fails to make its wishes known, legislators cannot be blamed if they obey the mandate of more articulate voters. In this respect the voice of the individual is more effective than that of organizations. The legislator knows that he is elected by the ballots of individuals in his district and their opinions, therefore, count most heavily with him.

"Physicians must learn to exercise their full political power in the interests of their profession and the public health. Physicians have no right to complain of legislative apathy when they

themselves are too indifferent to their own interests to make their views known to their representatives."

In no profession does culture count for so much as in medicine, and no man needs it more than the general practitioner.—Sir William Osler.

In its recent report which received widespread publicity in the daily press, the Program Committee of the Republican Party made the following statements, among others, on the health and medical activities of the nation:

Standing Aloof or Failure To Act Will Prove Fatal "The Federal health program should not weaken by competition or directly supplant worthy existing health agencies, but should work towards implementing and developing the agencies already in existence.

"The national health program should be operated by a cooperative utilization of the forces of government, the medical profession, and voluntary social groups.

"The now rapidly growing voluntary nonprofit health and hospital insurance plans may be developed to meet the problem of medical and hospital costs quite as effectively as governmentally directed plans could possibly be. They are more flexible and more readily adaptable to varied and changing conditions. Giving these voluntary plans a full trial, under helpful stimulus from government leadership, will develop a fund of experience which is now lacking."

In our opinion there are several challenges to the medical profession and its organizations in the foregoing general statements.

Regardless of which political party may be in control at Washington, efforts "towards implementing and developing the agencies already in existence" may be anticipated. Thus, it behooves the medical profession to keep in close touch with agencies engaged in health and medical activities, directing policies and procedures if at all possible. There are those among the leaders of the medical profession who are not especially alarmed about the enactment of new health legislation but they are deeply concerned about the constant efforts being made to expand the scope of existing agencies when and where the need for such expansion does not exist. More control over activities now being carried on is something which the medical profession should strive to obtain.

None can find fault with the plea for greater cooperation between the medical profession and government on health problems. In the past government has too often followed the principle of dictation. At the same time, the medical profession in some communities has failed to lend its

active support to worthy programs sponsored by agencies sincerely desiring the cooperation of the profession. The use of the term "cooperative" offers a challenge to both government and the medical profession.

The reference to voluntary nonprofit health and hospital service programs carries a subtle warning to the medical profession. In effect, the profession is encouraged to continue with its efforts to meet existing health and medical problems through voluntary programs. At the same time, it is implied that these voluntary plans are on trial. This the medical profession must recognize. It is confronted with the challenge of making them successful or prepare for more direct governmental action.

Some weeks ago while addressing an Ohio audience, a crack Washington commentator was asked to express an opinion about the prospects of health proposals pending in the Congress. He predicted expansion of the health activities of the Federal Government during the next few years, closing with this significant statement: "Health legislation has been neglected by the politicians". What he meant, he explained, is that politicians are just beginning to realize that the word "health" has vote-getting possibilities.

There are definite challenges which the medical profession must meet—and promptly. Standing aloof or failure to act in a practicable manner will prove fatal.

The man who graduates today and stops learning tomorrow is uneducated the day after.—Newton D. Baker.

By the time this issue of *The Journal* reaches its readers, the fact that the United States Court of Appeals for the District of Columbia on

Real Question In Suit Against A.M.A.

Still Unanswered

March 4 reversed a district court decision which had quashed an indictment against the American Medical Association and others, charging violation of the Sherman Anti-Trust Act, will not be news. As was to be expected plenty of newspaper publicity has been given to the decision, reviewed in the March 9 and March 16 issues of *The Journal of the American Medical Association*.

After stripping the case of its legal phraseology, we believe the situation is this: The court of appeals disagrees with Judge Proctor of the district court who held that medicine was a learned profession and therefore not within the scope of the Sherman act. The higher court contends that the Sherman act is applicable to professions as well as trades, industry and business enterprise generally, and that the defendants may be tried for alleged violation of the anti-

trust law. Obviously, what the Supreme Court thinks about the matter will not be known until the case gets to that body through appeal, either on technical grounds or in appealing whatever verdict is rendered at trial of the case on its merits.

Looking at the case in the abstract, our opinion is that there is only one way to decide the issue: Let the case be tried on its merits. This is the only means by which the most important of all the questions involved can be answered. That question is this: In acting as they did were the defendants, either directly or indirectly, rendering a real public service and offering a protection to the health and welfare of the people, directly or indirectly, involved? We are of the opinion the defendants were doing just that and that any fair-minded court, if this is a fact, will vote for acquittal. So long as the medical profession bases its actions on the principle that what is done is, in the final analysis, for the best interests of the public at large it need not fear the consequences until there should arrive a time in the history of this country when under some new social order the interests of the people will be entirely subordinated to the power and demands of government.

Action may not always bring happiness; but there is no happiness without action.—Beaconsfield.

It becomes necessary from time to time to call to the attention of readers of *The Journal* that the portion of each issue devoted to advertising deserves just as careful consideration as sections carrying clinical articles and news.

Let the Advertisers of The Journal Be

Your Consultants! Obviously, those advertising in *The Journal* expect a return on their investment. However, there is more to it than just that. Through their advertisements they are helping to keep members of the medical profession accurately informed on new advances in the technical aspects of medicine and where proper institutional care may be obtained for their patients.

Through adequate regulations and proper supervision, advertising material published in *The Journal* is maintained at a high standard. Only dependable firms and organizations are permitted to use the advertising columns. Therefore, readers patronizing our advertisers need have no fear about the quality of the products or services offered.

Advertisers in medical journals like those using the columns of other professional and trade publications appreciate hearing from consumer groups. Obviously, an order for merchandise is tops with them. But, there are other ways of

indicating an interest, either by clipping and mailing coupons carried in many of the advertisements or by sending in special inquiries about the products mentioned.

Physicians should regard firms and organizations advertising in *The Journal* as professional aides and consultants. We recommend that our readers take advantage of the unlimited facilities offered by our advertisers and that in writing them, there be some indication that the contact came through *The Ohio State Medical Journal*.

All which has been said with respect to advertisers applies as well to those making up the Technical Exhibit at the Annual Meeting. While attending the Annual Meeting in Cincinnati, May 14-16, every physician should make a special effort to visit each exhibit.

Physicians the "Goats" In the Latest Version of "Gone With the Wind"

During recent weeks the Columbus Better Business Bureau has received complaints from physicians in Bellefontaine, Massillon, Lima, Martins Ferry, Findlay, Lexington, Ky.; Fairmount, West Va.; South Bend, Indiana, and Milwaukee regarding the "Medical Forms Company", an agency "selling" various forms and blanks particularly adapted for use by physicians in the collection of accounts and said to have offices in Columbus.

According to the Columbus Better Business Bureau, the so-called company is said to be a partnership formed by Francis W. Dugan and E. Everett Lowry who operated out of Cincinnati before moving their headquarters to Columbus.

The complaints on file allege that either Dugan or Lowry obtained orders for certain forms, collecting either a down-payment or payment in full, and that the purchasers failed to receive the material ordered.

Mail addressed to the "firm's" Postoffice Box, No. 716, Columbus, by the Columbus Better Business Bureau was returned marked: "Box Rent Not Paid, gone, No Address". A letter addressed to Dugan at 242 S. 18th Street, Columbus, said to be his rooming house, was returned with the notation: "Gone, No Address". The latest report obtained by the Bureau was that Dugan, after soliciting business in Milwaukee in February, left hurriedly with South Bend, Indiana, or Columbus as his destination. He had not been located in Columbus up to the time this was written.

The Better Business Bureau suggests that persons having complaints against this agency and the two men consult with their respective city or county prosecutors to determine what remedial action might be taken.

Once again *The Journal* takes this opportunity to warn members of the Ohio State Medical Association: "Before You Invest, Investigate".

Osteopath Not "Licensed Physician," Therefore Not Eligible For Office of Coroner, Attorney General Herbert Rules

An osteopathic physician is not a licensed physician within the meaning of Section 2856-3, General Code of Ohio, and is therefore not eligible to the office of coroner, unless he shall have previously served as coroner prior to his election, according to an opinion (No. 1918) rendered by Attorney General Thomas J. Herbert on February 26, 1940, in reply to an inquiry made by Secretary of State Earl Griffith as to whether or not an osteopathic physician seeking the office of county coroner is eligible for that office.

Section 2856-3 of the General Code, which the Attorney General has interpreted in this opinion of far-reaching importance and scope, reads as follows:

"No person shall be eligible to the office of coroner in any county except a licensed physician

Shortly before this issue went to press, Clarence D. Kester, Darke County osteopath, filed an action in the Ohio Supreme Court asking the court to issue a writ of mandamus to compel the Darke County Board of Elections to accept his declaration of candidacy for the office of county coroner and place his name on the ballot at the Democratic primary election in May. The board had refused to do so after Attorney General Herbert had issued the accompanying opinion. Date for trial of the case had not been set by the Supreme Court up to press time.

of good standing in his profession or a person who shall have previously served as coroner prior to his election."

Although the opinion was requested for the purpose of clarifying a question raised in connection with the one statute—that relating to the office of coroner—it is broad enough to cover all other sections of the General Code in which the term "licensed physician" is used. Its application to other sections undoubtedly means that an osteopath is not a "licensed physician" within the meaning of all laws where services of a "licensed physician" are mentioned but that the term means one licensed to practice medicine or surgery.

Following is a complete text of Attorney General Herbert's able opinion:

"This will acknowledge receipt of your letter of recent date, wherein you request my opinion on the question of whether or not an osteopathic physician is eligible to the office of coroner.

"Section 2856-3, General Code, which sets forth the qualifications for coroner, reads in part as follows:

"'No person shall be eligible to the office of coroner in any county except a licensed physician of good standing in his profession or a person who shall have previously served as coroner prior to his election.'

"Is an osteopathic physician a 'licensed physician' within the meaning of the above section? This is the sole question for consideration.

"A 'physician', as defined in Webster's New International Dictionary, is 'a person skilled in physic or the art of healing; one duly authorized to treat diseases, esp. by medicines; a doctor of medicine;—often distinguished from surgeon.'

"In the case of *Prowitt v. City of Denver*, 11 Colo. App. 70, it is stated:

"'A physician is one qualified and authorized to prescribe remedies for diseases. He gives prescriptions for medical purposes; and the sale of liquor on a prescription given by him is a sale of liquor for medical purposes.'

"In the case of *State v. Beck*, 21 R.I. 288, the court defined a 'physician' as:

"'*** one who practices the art of healing disease and of preserving health; a prescriber of remedies for sickness and disease. He is presumed to be familiar with the anatomy of the human body in its entirety; to understand the science of physiology and the laws of hygiene; and to be able to minister, as far as may be, to the relief of pain, disease, and physical ailments of all sorts and kinds whatsoever.'

"See also *Harrison v. State*, 102 Ala. 170; *Richardson v. State*, 47 Ark. 562; *Castner v. Sliker*, 33 N. J. Law, 507.

"Osteopathy has been defined as that method of the healing art accomplished by a system of rubbing and kneading the body. *State v. Marble*, 72 O. S. 21; *State v. Gravett*, 65 O. S. 289.

"Section 1273, General Code, which provides for the examination of applicants for certificates to practice medicine and surgery, reads as follows:

"'The examination of applicants for certificates to practice medicine or surgery shall be conducted under rules prescribed by the state medical board. Each applicant shall be examined in anatomy, physiology, pathology, chemistry, materia medica

and therapeutics, the principles and practice of medicine, diagnosis, surgery, obstetrics and such other subjects as the board requires. The applicant shall be examined in materia medica and therapeutics and principles and practice of medicine of the school of medicine in which he desires to practice, by the number of members of the board representing such school.'

"Section 1290, General Code, provides for the appointment of a state osteopathic examining committee by the State Medical Board. The provisions of law with respect to the examination in osteopathy are contained in section 1289, General Code, which reads as follows:

"'Before he shall be admitted to an examination before the state medical board a person who desires to practice osteopathy shall pay a fee of twenty-five dollars to its treasurer and file with its secretary such evidence of preliminary education as is required by law of applicants for examination to practice medicine or surgery, together with a certificate from an osteopathic examining committee as hereafter provided, showing that the applicant holds a diploma or a physician's osteopathic certificate from a reputable college of osteopathy as determined by such committee, and that he has passed an examination in a manner satisfactory to the committee in the subjects of pathology, physiological chemistry, gynecology, minor surgery, osteopathic diagnosis and the principles and practice of osteopathy.'

"In addition to the subjects of examination above set out, an osteopath is, under the last amendment to section 1288, General Code (108 O. L. Pt. 1, p. 160), required to successfully pass an examination in the subjects of anatomy, physiology, obstetrics, surgery and diagnosis in the manner provided by the Medical Board.

"It will be noted from the sections above quoted, that an osteopathic physician is not required to submit to or pass an examination in materia medica or therapeutics, or the principles and practice of medicine, while under the statute no person may be given a certificate to practice medicine or surgery without successfully passing an examination in these subjects. The words 'materia medica' and 'therapeutics' are defined in Webster's New International Dictionary as follows:

"'Materia medica. Material or substance used in the composition of a remedy; the general term for all substances used as curative agents in medicine.'

"'Therapeutics. That part of medical science which treats of the discovery and application of remedies for diseases.'

"Section 1274, General Code, which deals with the issuance of a certificate to practice medicine, reads in part as follows:

"'*** Such certificate when deposited with the probate judge as required by law, shall be conclusive evidence that the person to whom it is issued is entitled to practice medicine or surgery in this state.'

"Provisions with respect to the certificate issued to an osteopathic physician are contained in section 1288, General Code, which reads in part as follows:

"'*** Such certificate shall authorize the holder thereof to practice osteopathy and surgery in the state, but shall not permit him to prescribe or administer drugs, except anesthetics and antiseptics.'

"After reading the language contained in the two sections last above quoted, it is apparent that the Legislature did not consider osteopathic physicians qualified to engage in the unlimited practice of medicine or surgery. This conclusion finds further support in the fact that the statutes, as above pointed out, do not require the same technical qualifications of osteopaths as are required of practitioners of medicine and surgery.

"The question of whether or not the word 'physician', when used in the statutes contemplated inclusion of osteopathic physicians, was considered in an opinion by the then Attorney General in 1933 (Opinions of the Attorney General, 1933, Vol. II, 1537), wherein it was held:

"'An osteopathic physician is not a registered physician having at least three years' experience in the practice of medicine, within the meaning of Section 1956, General Code, and is therefore not qualified to act as a medical witness in lunacy proceedings held pursuant to Sections 1954, et seq., General Code. (Opinion of a former Attorney General, appearing in Opinions of the Attorney General for 1917, Vol. 3, page 1994, followed.)'

"The language of the statute under consideration in said opinion (former section 1956 of the General Code, now section 1890-27, General Code) reads as follows:

"'The medical witnesses must be registered physicians according to the laws of Ohio, and must have had at least three years' experience in the practice of medicine.'

"It is a fundamental rule of statutory construction that words of a statute are to be given their natural and commonly understood meaning. On this point, it is stated in 37 O. Jur. page 542:

"'As a general rule, words of a statute, in common use or other than terms of art or science, will be construed in their ordinary acceptance and significance and with the meaning commonly attributed to them. Indeed, the intention of the legislature to use statutory phraseology in such manner has even been presumed. Ordinarily, such words are to be given their natural, literal, and full meaning. These rules are applicable unless such an interpretation would be repugnant to the intention of the legislature, as plainly appears from a construction of the entire statute.'

"An examination of the Medical Practice Act (Sections 1262 to 1295-20, General Code) will disclose that there is nothing contained therein which would indicate that the Legislature intended the word 'physician', when used in the

statutes, to mean any person other than one who is licensed to practice medicine or surgery. To the contrary, the different branches of practice have been distinctly classified by the Legislature. One branch is referred to as 'practitioners of medicine or surgery', another as 'practitioners of limited branches of medicine or surgery', and a third as 'osteopathic physicians'.

"It would therefore appear that the word 'physician', as the same is used in the statute in question, is a person who is licensed to practice 'medicine or surgery'. The practice of medicine as ordinarily or popularly understood not only requires a knowledge of disease and its origin, but in addition requires a knowledge of drugs, their preparation and action. In other words, it consists of the discovery of the cause and nature of the disease, and the administration of drugs and their remedies in connection with the treatment thereof.

"In view of the foregoing, I am constrained to reach the conclusion that the words 'licensed physician' as the same appear in section 2856-3, supra, refer to those practitioners licensed to practice medicine or surgery and do not contemplate osteopathic physicians, since, under the terms of the statute, the latter are not permitted to prescribe or administer drugs, except anesthetics and antiseptics.

"Therefore, in specific answer to your question, it is my opinion that an osteopathic physician is not a licensed physician within the meaning of section 2856-3, General Code, and is therefore not eligible to the office of coroner, unless he shall have previously served as coroner prior to his election."

A.M.A. Golf Tournament Scheduled for June 10 on Winged Foot Course

The American Medical Golfing Association's Twenty-Sixth Annual Tournament will be held at Winged Foot Golf Club, Mamaroneck, New York, Monday, June 10. Winged Foot has two famous championship courses and a beautiful club-house.

Some 250, out of the 1,360 Fellows of the A.M.G.A., are expected to take part at Winged Foot in the 36-hole competition. Each contestant will play both courses. The hours for teeing off are from 7:00 a.m. to 2:00 p.m. The 60 prizes in the nine events, will be distributed after the banquet at the club-house at 7:00 p.m.

Officers of the A.M.G.A. for 1940 are Dr. George Washington Hall, Chicago, president; Dr. D. H. Houston, Seattle, first vice-president; Dr. Grayson Carroll, St. Louis, second vice-president; Bill Burns, secretary, 2020 Olds Tower, Lansing, Michigan.

All members of the A.M.A. are eligible for Fellowship in the A.M.G.A.. For registration application write the Secretary.

NEW INDUSTRIAL COMMISSION

RULES

The following new regulations were recently announced by Dr. Sidney McCurdy, Supervisor, Medical Section, State Industrial Commission:

1. Effective February 19, 1940, no bills will be paid to hospitals for redressings in hospital dispensaries.

2. No bills are to be paid directly to hospitals for X-ray therapy when filed on Form C-16 (hospital fee bill). The bills for X-ray therapy must be presented on Form C-19 over the signature of the radiologist giving the treatment.

Staff Officers of Toledo Hospitals

The following physicians are staff officers of Toledo hospitals for the current year: Mercy Hospital—Dr. T. F. Heatley, chief; Dr. F. L. Eye-stone, vice-chief; Dr. L. R. Effler, secretary-treasurer. Flower Hospital—Dr. Frank B. Ficklin, chief; Dr. W. A. Neill, vice-chief; Dr. K. C. McCarthy, secretary-treasurer. Robinwood Hospital—Dr. H. L. Greene, chief; Dr. R. S. Gillette, secretary-treasurer. Women's and Children's Hospital—Dr. H. B. Meader, president; Dr. N. B. Muhme, vice-president; Dr. K. R. Howard, secretary; Dr. J. H. Smith, treasurer. St. Vincent's Hospital—Dr. E. J. McCormick, chief; Dr. R. C. King, vice-chief; Dr. A. P. Hancuff, secretary-treasurer; Dr. M. W. Diethelm, secretary to Academy. Toledo Hospital—Dr. L. C. Grosh, Sr., president; Dr. Lewis F. Smead, vice-president; Dr. G. H. Reams, secretary-treasurer. Lucas County Hospital—Dr. H. B. Meader, chief; Dr. F. W. Clement, vice-chief; Dr. Kinsley Renshaw, secretary. East Side Hospital—Dr. A. W. Hemphill, president; Dr. John Gersten, vice-president; Dr. Chas. J. Richards, secretary-treasurer; Dr. C. S. Ordway, chief surgeon.

Medical Service Plan Approved

A medical service plan for wage earners in the lower income brackets was approved by the House of Delegates of the Medical Society of the State of Pennsylvania at a special meeting in Harrisburg, February 28. Enabling legislation for this purpose was passed last year by the Pennsylvania General Assembly. The plan is to be tried first in the Fifth Councilor District, comprising nine counties.

In Memoriam

Frank Edwin Ayers, M.D., Celina, Starling Medical College, Columbus, 1897; aged 64; member of the Ohio State Medical Association and the American Medical Association; died February 23. Dr. Ayers was secretary of the Mercer County Medical Society. He had practiced in Celina for 35 years, and was previously located in Wabash for seven years. Dr. Ayers had been major and commanding officer of the medical detachment of the 148th Infantry, Ohio National Guard, since 1920. During the World War he served overseas as a lieutenant in the Medical Corps of the United States Army. For the past 21 years Dr. Ayers was health commissioner of Mercer County. He was a member of the Methodist Church, the American Legion and the I.O.O.F. Surviving are his widow, two sons and a brother.

William Elliott Bruce, M.D., Cambridge; Medical College of Ohio, Cincinnati, 1889; aged 78; former member of the Ohio State Medical Association and the American Medical Association; died February 24. Dr. Bruce retired from active practice in Dexter City several years ago because of ill health. Prior to that time he had practiced in Caldwell, and in Colorado, Kentucky and West Virginia. Dr. Bruce was a member of the Presbyterian Church and the Masonic Order. His widow, a daughter and a brother survive.

Robert Bruce Cameron, M.D., Defiance; Starling Medical College, Columbus, 1873; aged 95; member of the Ohio State Medical Association and the American Medical Association; died February 22. One of northwestern Ohio's oldest and best known physicians, Dr. Cameron practiced in Evansport eight years, moved to Jewell in 1884 and resided there until 1915, when he located in Defiance. His death occurred on the 67th anniversary of his graduation from medical school. He was at one time postmaster at Evansport and Jewell; represented Defiance County in the Ohio House of Representatives from 1912 to 1918; and for 14 years, until 1936, was county health commissioner. On April 17, 1929, Dr. Cameron was presented with the 50-year Masonic veterans' medal. His widow, two daughters and three sons survive.

Adam J. Dauer, M.D., Toledo; Rush Medical College, University of Chicago, 1903; aged 65; died February 24. Dr. Dauer practiced in East Toledo for 25 years. He was also active in the civic affairs of that community. Surviving are his widow, four daughters, a son, three sisters and a brother.

Peter Nicholas Gatsos, M.D., Cleveland; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md.,

1916; aged 58; died February 7. A native of Athens, Greece, Dr. Gatsos formerly practiced in Cleveland. He was nationally known for his interest in the cultural and educational affairs of his countrymen. Surviving are his widow, two daughters and two sons.

William Addis Howard, M.D., Vincent; Central College of Physicians and Surgeons, 1895; aged 69; former member of the Ohio State Medical Association and the American Medical Association; died February 15. Dr. Howard had practiced in Vincent for 41 years. He was previously located in Parkersburg, W. Va., for four years. For a number of years he was a member of St. Joseph's Hospital staff at Parkersburg. Dr. Howard was a member of the B.P.O.E. Two daughters and a sister survive.

Robert J. Jones, M.D., Greenfield; Medical College of Ohio, Cincinnati, 1896; aged 69; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died March 11. Dean of Greenfield's medical profession, Dr. Jones practiced there for 44 years. In 1916 he founded the city's first hospital. Active in community affairs, Dr. Jones was a member of the Presbyterian Church, Masonic Order and the Fraternal Order of Eagles. His widow, a daughter, a son, two sisters and a brother survive.

Willis H. Keenan, M.D., Coshocton; Ohio Medical University, Columbus, 1905; aged 62; former member of the Ohio State Medical Association and the American Medical Association; died February 28. Dr. Keenan first practiced medicine in Caldwell. He located in Coshocton in 1908, opening a hospital there in 1909, the first hospital in that city. Dr. Keenan had a distinguished military career, having served in France as battalion surgeon of the 369th United States Infantry. His decorations included the U. S. Distinguished Service Cross, the Purple Heart, the French Croix-de-Guerre and the Medal of French Territorials. Dr. Keenan was the first commander of the local American Legion Post. Four sisters and three brothers survive.

Wallace Dale Miller, M.D., Dayton; Ohio State University College of Medicine, Columbus, 1933; aged 37; died February 21. Dr. Miller practiced in Dayton for five years. His father and a brother survive.

Otto James Owens, M.D., Youngstown; Starling Medical College, Columbus, 1900; aged 65; died March 14. Dr. Owens located in Youngstown 16 years ago, after having previously practiced in Ottawa. He was a member of the Knights of Columbus and the United Spanish War Veterans. Dr. Owens was an officer in the

U. S. Army during the World War. Surviving are his widow, three sons, three sisters and a brother.

John Thomas Patton, M.D., New Weston; Starling Medical College, Columbus, 1897; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died February 26. Dr. Patton practiced in New Weston for nearly 40 years, before failing health necessitated his retirement. He was a member of the Masonic Order. His widow and a son survive.

Rush Robinson, M.D., Columbus; Ohio Medical University, Columbus, 1905; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 17. Dr. Robinson practiced in Columbus for 35 years. In 1938 he was president of the staff of White Cross Hospital. Dr. Robinson was a member of the Congregational-Christian Church and the Masonic Order. Surviving are his widow, two sons, one of whom is Dr. Rush Robinson, Jr., Columbus, a sister and a brother.

James F. Rudy, M.D., Jenera; Starling Medical College, Columbus, 1892; aged 78; died February 18. A practicing physician for nearly 50 years, Dr. Rudy spent most of his active career in Bluffton. He had been located in Jenera since last July. Dr. Rudy had also practiced in New Stark, Rawson and Bellevue. His widow, a daughter, a son and two sisters survive.

Oscar S. Seidel, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1898; aged 63; died February 7. Dr. Seidel practiced in Cincinnati for 40 years. Surviving are his widow, a daughter and two brothers.

Jesse Sturgeon, M.D., Salem; Bellevue Hospital Medical College, New York, 1878; aged 87; former member of the Ohio State Medical Association and the American Medical Association; died March 12. Dr. Sturgeon retired in 1936, after 58 years in the practice of medicine. A life-long resident of Columbiana County, he started practice in Salem, and after a short time there went to Leetonia, returning to Salem in 1904. An ardent outdoor sportsman, Dr. Sturgeon was keenly interested in hunting and baseball. He was a member of the Masonic Order. His widow, a daughter and a brother survive.

Northern Tri-State Meeting

Officers of the Northern Tri-State Medical Association extend a cordial invitation to Ohio physicians to attend the Sixty-Seventh Annual Meeting, to be held at the Battle Creek Sanitarium, Battle Creek, Mich., Tuesday, April 9, beginning at 8:15 A.M. The complete program was published on page 320, of the March issue of *The Ohio State Medical Journal*.

Fine Program Arranged for Meeting of State Hospital Physicians

All interested physicians are cordially invited to attend the meeting of the Ohio State Hospitals Physicians' Association at the Columbus State Hospital, Thursday and Friday, April 4-5.

The Thursday morning session will begin at 10 o'clock with addresses of welcome by Charles L. Sherwood, State Director of Public Welfare, and Dr. J. F. Bateman, State Commissioner of Mental Diseases, and a response by Dr. Ewing Crawfis, Lima, president of the Association. The remainder of the morning will be devoted to various committee reports and the report of the secretary-treasurer, Dr. I. S. Rian, Massillon. Two panel discussions will be given in the afternoon: "The Tuberculosis Problem in Ohio State Hospitals", Dr. A. T. Hopwood, Orient, chairman; "Hydrotherapy—A Critical Survey of Its Use and Value", Dr. Bateman, chairman. Dr. George T. Harding, Columbus, clinical professor of psychiatry, O. S. U. College of Medicine, will speak at the dinner session.

The following papers will be presented at the Thursday morning session, beginning at 9 o'clock: "Classification and Prison Psychiatry", Dr. George Woodward, Ohio Penitentiary, discussion opened by Dr. L. Dub; "Birth Injury in the Etiology of Mental Deficiency", Dr. Edith Offerman, Columbus, Institution for the Feeble-Minded, discussion opened by Dr. Hopwood; "A Case History of Manic-Depressive Psychosis, Depressive Type, in Identical Twins", Dr. Alonzo A. Petty, Dayton State Hospital, discussion opened by Dr. J. Wittenbrook; "Cerebral Arteriosclerosis", Dr. M. G. Harnick, Massillon State Hospital, discussion opened by Dr. Rian; "The Use of Parenteral Alcohol as a Diagnostic Aid", by Dr. J. M. Whitworth, Lima State Hospital, discussion opened by Dr. Crawfis.

The afternoon session will begin at 1:30 o'clock with a paper on "A Rorschach Study of Psychotic Personality in Uniovular Twins", by Dr. N. Michael and Dr. G. W. Kisker, Columbus State Hospital, discussion opened by Dr. E. Tietz. Two other talks are scheduled for this session: "An Ounce of Prevention", (deals with the principles of mental hygiene in the prevention of psychosis), Dr. B. Caplan, Toledo State Hospital, discussion opened by Dr. N. W. Kaiser; "Personality Structure in Pre-psychotic and Psychotic Life", Dr. Walter Musta and Dr. I. Malbin, Hawthornden State Hospital, discussion opened by Dr. G. T. Williams. The scientific program will close with a clinico-pathological conference by Dr. Emmerich von Haam, professor of pathology, O. S. U. College of Medicine, and Dr. N. O. Rothermich, Columbus State Hospital.

●

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A RECENTLY IDENTIFIED COMPONENT OF THE VITAMIN B COMPLEX

● During the past few years, brilliant research made possible the resolution of the vitamin B complex into various components, including thiamin, riboflavin and nicotinic acid (P-P factor). The essential characters of these factors in human nutrition are, of course, clearly recognized. Within the past two years another component of the complex, namely, vitamin B₆, has been identified. At the present time, it appears very probable that this vitamin is also necessary for the human.

Vitamin B₆ has been designated biologically as, "that part of the vitamin B complex which is responsible for the cure of a specific dermatitis developed by young rats on the vitamin-free diet supplemented with Vitamin B₁ and lactoflavin" (1). The isolation in crystalline form, chemical identification and synthesis of vitamin B₆ have already been accomplished (2, 3). Chemically, vitamin B₆ is 2-methyl, 3-hydroxy, 4,5-dihydroxy-methyl pyridine. The free base melts at 160°C. and is apparently stable at elevated temperatures.

A recent medical report (4) suggests that vitamin B₆ may be an essential component

of the human diet. In one small group of persons it was observed that certain neurological symptoms, which did not respond to treatment with nicotinic acid, riboflavin and thiamin, were distinctly alleviated by the administration of pure synthetic vitamin B₆. This observation is strongly indicative of the importance of vitamin B₆ in human nutrition, and further emphasizes the importance of a varied diet for supplying all nutrients required by the human being.

The distribution of vitamin B₆ in food products has not yet been extensively investigated. However, vitamin B₆ activity has been observed in a variety of natural food materials (5). Hence, it appears that we should continue to rely upon a varied diet to supply our requirements for all components of the vitamin B complex, vitamin B₆ included. The high heat stability of this new vitamin suggests that many foods which commercial canning makes readily available during all seasons of the year may prove to be valuable sources of vitamin B₆, whose essential character in human nutrition seems strongly indicated at this time.

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| <p>(1) 1939. The Vitamins, pages 127-140, American Medical Assn., Chicago.</p> <p>(2) a. 1938. Proc. Soc. Exptl. Biol. Med. 38, 64.
 b. 1938. J. Am. Chem. Soc. 60, 1267.
 c. 1939. Ibid. 61, 1237.
 d. 1939. Ibid. 61, 1242.</p> | <p>(3) 1939. J. Am. Chem. Soc. 61, 1245.</p> <p>(4) 1939. Am. Med. Assoc. 112, 2414.</p> <p>(5) a. 1936. Missouri Agric. Expt. Sta. Research Bull. No. 241.
 b. 1938. Biochem. J. 32, 708.
 c. 1938. Indian. J. Med. Res. 25, 879.</p> |
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Do You Know - - -

Membership in the Ohio State Medical Association on March 15 was 5,795, compared with 5,654 on March 15, 1939, and 6,388 on December 31, 1939.

* * *

Detroit physicians who make a hobby of farming have formed an A.A.A.—(not a New Deal agency)—Association of Agrarian Aesculapians.

* * *

The Cleveland Hospital Service Association with nearly 300,000 members reports that at present 8 per cent of hospital cases and 17 per cent of hospitalization costs represent maternal care.

* * *

The medical and public health exhibits of the New York World's Fair will be re-opened for the 1940 season on May 11. New exhibits will be added to supplement the Carrel-Lindberg "heart", the transparent man and other dramatizations of medical science which attracted 7,500,000 visitors in 1939.

* * *

The Commission to Formulate a Health Program created by the New York State Legislature last year, which was to have made its final report March 15, 1940, has asked for another year's time to continue its study before making that report.

* * *

Catherine M. Forrest, for the past three and one-half years health education consultant in the Bureau of Child Hygiene, State Department of Health, has been named assistant general secretary of the Ohio State Nurses' Association.

* * *

Periodic examinations for tuberculosis among pupils, teachers and employees in public schools are now required by law in New Jersey.

* * *

Out of 9,533 prisoners in 80 camps in North Carolina who were given serological tests for syphilis in a state-wide survey conducted co-operatively by the State Board of Health and the State Highway and Works Commission, 2,229 or 23.3 per cent were found to be syphilitic. The results showed that 8.5 per cent of all white prisoners and 34.2 per cent of all Negro prisoners reacted positively to the tests.

* * *

After July 1 any suture marketed and labeled as surgical gut, catgut suture, or surgical catgut, must meet the recently established standards for the manufacture of surgical catgut contained in the eleventh revision of the United States Phar-

macopoeia. These requirements are in accordance with the Federal Food, Drug and Cosmetic Act of 1938.

* * *

New officers of the Cincinnati Obstetrical Society are: Dr. William P. Gillespie, president; Dr. Edward Friedman, vice-president, and Dr. Carroll J. Fairo, secretary-treasurer.

* * *

Speakers at the Dallas Southern Clinical Society annual spring conference, March 11-14, at Dallas, Texas, included Dr. M. A. Blankenhorn, professor of medicine, and Dr. Frank E. Stevenson, associate professor of pediatrics, University of Cincinnati College of Medicine.

* * *

There were more persons on relief in Ohio in February and more money was spent for relief that month than during any month since the end of 1938. Due to employment falling off and the closing of WPA projects during zero weather, the relief load increased from 115,231 cases in January to 119,633 cases in February.

* * *

The William Freeman Snow Award presented annually by the American Social Hygiene Association for distinguished service to humanity has been given to General John J. Pershing, first chairman of the National Anti-Syphilis Committee of the Association.

* * *

Dr. Michael A. Shadid, ardent proponent of cooperative medicine and founder of the Co-operative Community Hospital at Elk City, Oklahoma, is a candidate for Congress.

* * *

Volunteer blood donor organizations, with a total membership close to 98,000, now serve 56 communities throughout the country.

* * *

The United States Bureau of the Census reports that the maternal mortality rate for 1938, which was 43.5 per 100,000 live births, was the lowest ever recorded in the United States.

* * *

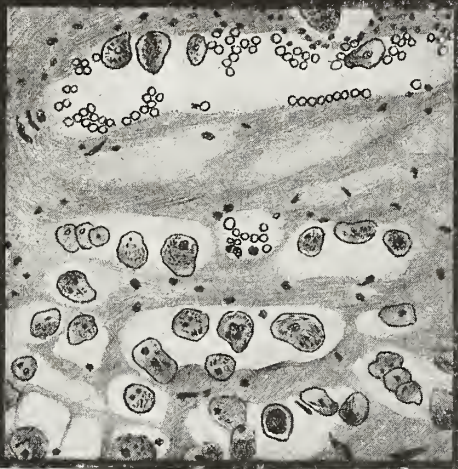
Dr. Ben R. McClellan, Xenia, was recently re-elected president of the Greene County Museum Association. Dr. McClellan is also chairman of the local committee to raise funds for Finnish relief.

* * *

Dr. Charles Frederick Kaadt, South Whitley, Indiana, was found guilty in Federal Court at Ft. Wayne, Indiana, of using the mails to defraud in the sale of a diabetes remedy which the government contended was worthless in treatment of the disease.

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** Zener, F. B., *Am. Jl. Surg.* 44:416 (1939)



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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

Twenty-six members were present at a meeting of the Butler County Medical Society, Thursday evening, February 22, at the Elks' Temple, Hamilton. Dr. James N. Christiansen, assistant resident physician, Hamilton County Tuberculosis Sanitorium, Cincinnati, spoke on "The Modern Treatment of Tuberculosis". Dr. Harold A. Schirman showed an interesting movie on the treatment of tuberculosis in Butler County.—Vera Coombs Iber, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during March:

March 5—"The Diagnosis and Management of Cancer of the Breast", Dr. Arthur C. Christie, professor of clinical radiology, Georgetown University Medical School, Washington, D. C.

March 12—Hospital Night. Case reports arranged and presented by the staff of Christ Hospital. "Osteoma of the Maxillary Sinus", Dr. Harry H. Haggart; "Placenta Praevia, Complicating Premature Separation of the Placenta", Dr. John H. Fleming and Dr. James M. Pierce; "A Case of Ewing's Tumor", Dr. Benjamin L. Hawkins and Dr. E. A. Kindel; "Sarcoma Rising in Connection with a Ventral Hernia", Dr. Reed A. Shank and Dr. John R. Meek; "Congenital Ectopic Kidneys", Dr. T. W. Rush.

March 19—"Basic Principles in the Dietary Management of Diabetes Mellitus", Dr. Howard F. Root, The New England Deaconess Hospital, Boston, Mass. This meeting was held under the auspices of the Council of Diabetes of the Public Health Federation.

March 26—Symposium on "Hematemesis and Melena": "Etiologic and Diagnostic Considerations in Cases of Hematemesis and Melena", Dr. Sander Goodman; "Factors Influencing Mortality in Cases of Hematemesis and Melena", Dr. Harold K. Moss; "Blood Urea Nitrogen Content Following Hematemesis and Melena", Dr. Richard J. Stevens; "Medical Treatment of Bleeding Peptic Ulcer With Particular Reference to the Meulengracht Regime", Dr. Leon Schiff; "The Surgical Treatment of Bleeding Peptic Ulcer", Dr. Max M. Zinninger.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

A report on the National Conference on Medical Service held at Chicago, February 11, was

made by Dr. D. W. Hogue at a meeting of the Clark County Medical Society, Thursday noon, February 15, at the Hotel Shawnee, Springfield.

Dr. Frank Wm. Anzinger spoke on "Diabetes Mellitus: Etiology, Diagnosis, Treatment, and Prevention of Complications", at a meeting of the society, Thursday noon, February 29.—News clipping.

DARKE

Dr. W. C. Breidenbach, Dayton, demonstrated the advantages of the use of the planograph in lung conditions, at a meeting of the Darke County Medical Society, Tuesday, March 19, at the James Hotel, Greenville.—W. D. Bishop, M.D., secretary.

GREENE

"Causes of Sudden Death After 40", was the subject of an address made by Dr. Howard D. Cassell, Dayton, at a meeting of the Greene County Medical Society, Thursday morning, March 7, in the society's room in the basement of the Court House, Xenia. A proposed plan for the medical care of Farm Security Administration clients in the county was discussed.—Donald F. Kyle, M.D., secretary.

MIAMI

At a meeting of the Miami County Medical Society, Friday afternoon, February 2, at Stouder Memorial Hospital, Troy, a motion picture on "Current Practices in Operating Oxygen Therapy Equipment", was shown through the courtesy of the Linde Products Company. Dr. Russell W. Gardner spoke on "Modern Concept of the Treatment of Pneumonia".

The society met at Piqua Memorial Hospital, Friday afternoon, March 1. A sound movie, "Ovulation and the Effects of the Gonadotropic Hormone of Pregnant Mares' Serum", was shown through the courtesy of the Upjohn Company. Medical progress in 1939 was reviewed by three Troy physicians: "Advances in Medicine", Dr. Fred B. Hapke; "Advances in Surgery", Dr. E. R. Torrence; "Advances in Pediatrics", Dr. Harry Shilling. The Public Relations Committee made a report on meetings with representatives of the Farm Security Administration regarding a proposed medical program for their clients, and with the County Relief Administrator on a plan for the medical care of the poor.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Harry A. Towlsey of the Department of Pediatrics, University of Michigan Medical School, Ann Arbor, spoke on "Contagious Diseases", at a meeting of the Montgomery County Medical Society, Friday evening, March 1. A colored motion picture, "Acute Exanthema", was

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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WHEATON, ILLINOIS

shown. Chas. Watkins, of the local Chamber of Commerce, gave a brief talk on "Community Building".

At a meeting of the society, Friday evening, March 15, Dr. George T. Pack, New York City, spoke on "Diagnosis and Treatment of Tumors of Stomach, Colon and Rectum".—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

CRAWFORD

The Crawford County Medical Society held its regular monthly meeting at the Greenlawn Inn, near Crestline, Monday, March 4. After the dinner and business session, Dr. Harry L. Reinhart, Columbus, spoke on "Functions of the Liver and Function Tests".—Theo D. Sawyer, M.D., secretary.

HARDIN

Dr. John LoCricchio, Lima, spoke on "Leukemia", at a meeting of the Hardin County Medical Society, Thursday evening, February 15, at Kenton.—News clipping.

LOGAN

Officers of the Logan County Medical Society for 1940 are: Dr. Charles L. Barrett, Bellefontaine, president; Dr. Charles H. Thompson, West Mansfield, vice-president; Dr. F. W. Kaylor, Bellefontaine, secretary; Dr. J. B. Harbert, Dr. A. J. McCracken and Dr. F. B. Kaylor, Bellefontaine, legislative committee; Dr. C. K. Startzman and Dr. F. Blair Webster, Bellefontaine, and Dr. John K. Humphries, Belle Center, public relations committee; Dr. R. B. Pratt, Bellefontaine; Dr. Lee Traul, Middleberg, and Dr. R. A. Firmin, Zanesfield, medical economics committee; Dr. Webster, delegate; Dr. Humphries, alternate.

Dr. I. D. Baxter, Lima, spoke on "The Acute Abdomen in Children", at a meeting of the society, Friday evening, March 11, at the Hotel Logan, Bellefontaine.—F. W. Kaylor, M.D., secretary.

MARION

Dr. Jay McClean, Columbus, spoke on "The Importance of the General Practitioner in Cancer Control", at a meeting of the Marion Academy of Medicine, Tuesday night, February 6, at the Marion City Hospital.—News clipping.

SENECA

"Tuberculosis", was the subject of an address made by Dr. Paul M. Holmes, Toledo, at a meeting of the Seneca County Medical Society, Thursday evening, March 14, at the Shawhan Hotel, Tiffin.—M. H. Aiken, M.D., secretary.

VAN WERT

Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, spoke on "Current Trends in Organized Medicine", at a

meeting of the Van Wert County Medical Society, Tuesday evening, March 5, at the Hotel Marsh, Van Wert.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during March:

March 1—General Meeting. "The National Physicians' Committee—Its Purposes and Objectives", Dr. John T. Murphy.

March 8—Section of Pathology, Experimental Medicine and Bacteriology. "Bone Syphilis. Its Role in 'Rheumatism'", Dr. D. M. Stewart, with discussion by Dr. E. P. Gillette.

March 15—Medical Section. "Relation of Body to Mind", Dr. Louis A. Miller.

March 22—Surgical Section. "Polypoid Tumors of the Rectum and Lower Sigmoid", symposium by Dr. W. W. Green, Dr. T. L. Ramsey, Dr. M. E. Goodrich.

March 29—Eye, Ear, Nose and Throat Section. "The Present Status of the Diagnosis; Surgical

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and Local Treatment of Nasal Sinus Conditions with Some Items of Interest to the General Practitioner", Dr. Henry M. Goodyear, Cincinnati.—Bulletin.

PUTNAM

Dr. Edward J. McCormick, Toledo, Councilor for the Fourth District of the Ohio State Medical Association, discussed recent legislative trends and developments, with particular reference to the National Committee of Physicians, at a meeting of the Putnam County Medical Society, at the Hotel Putnam, Ottawa, Thursday, March 7.—H. N. Trumbull, M.D., correspondent for *The Journal*.

SANDUSKY

Officers of the society for 1940 are: Dr. Alexander S. Mack, Oak Harbor, president; Dr. George A. Boon, Oak Harbor, vice-president; Dr. Cyrus R. Wood, Port Clinton, secretary-treasurer; Dr. Henry J. Pool, Port Clinton, legislative committeeman; Dr. E. D. Schuiteman, Genoa, public relations committeeman; Dr. J. W. Burrows, Lakeside, medical economics committeeman; Dr. Frank E. Miller, Curtice, delegate; Dr. Carl J. Yeisley, Port Clinton, alternate.—Alexander S. Mack, M.D., president.

A proposed plan for the medical care of Farm Security Administration clients was discussed at a meeting of the Sandusky County Medical Society, Thursday night, February 29, at Fremont, Dr. Edward J. McCormick, Toledo, Fourth District Councilor, gave a talk on "Medical Economics".

WOOD

Dr. Oliver E. Todd, Toledo, spoke on "Indications for the Use of Forceps", and "Obstetrical Analgesia and Anesthesia", at a meeting of the Wood County Medical Society, Thursday, March 21, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

The annual dinner-dance of the Ashtabula County Medical Society was held at the Hotel Ashtabula, Ashtabula, Tuesday evening, February 13, with 45 couples attending. The committee in charge included Dr. H. A. Tagett and Dr. William Millberg, Ashtabula; Dr. John H. Mowry, Conneaut, and Dr. N. C. Kiefer, Geneva.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during March:

March 1—Clinical and Pathological Section. "Agraphia as the Presenting Symptom of Lues Cerebri", Dr. M. A. Friedman; "A Case of Gumma of the Stomach", Dr. L. E. Blachman; "Three Cases of Remaining Common Duct Stones", Dr. Howard M. Gans; "Strangulation of

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the Urinary Bladder in an Inguinal Hernia", Dr. L. W. Krauss; "Toxic Hepatitis Due to Sulfanilamide", Dr. H. S. Applebaum.

March 8—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "The Action of Calcium in the Urinary Tract", Dr. J. R. Trattner and Dr. B. J. Walzak; "Correlation of Antral and Bulbar Pressures with Fluoroscopic Observations, Especially in Relation to Gastric Evacuation", (Symposium of three papers). "Methods of Recording Intralumen Pressures of the Gastro-Intestinal Tract", D. Brody, B.S.; "Effects of Gastric Filling on Antral and Bulbar Pressure Patterns", Dr. J. M. Werle; "The Mechanism of Gastric Evacuation", P. J. Quigley, Ph.D.

March 13—Obstetrical and Gynecological Section. "Erythroblastosis Foetalis in Twins", Dr. Donald C. Snyder; "Evaluation of Uterine Suspension", Dr. Gerald B. Hurd; "The Obstetrician and Ano-rectal Pathology", Dr. A. J. Skeel.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. Milton B. Cohen, Cleveland, spoke on "The Clinical Problems in Allergy" at a meeting of the

Mahoning County Medical Society, Tuesday evening, March 19, at the Youngstown Club, Youngstown.—Bulletin.

PORTAGE

"Treatment of Asthma", was the subject presented by Dr. Roger O. Egeberg, Cleveland, at a meeting of the Portage County Medical Society, Thursday evening, March 7, at the office of Dr. J. H. Krape, Kent.—E. J. Widdecombe, M.D., secretary.

STARK

A sound movie in technicolor, "Pregnant Mares' Serum (Gonadogen) for Treatment of Ovarian Testicular Disfunction", was presented through the courtesy of the Upjohn Company, at a meeting of the Stark County Medical Society, Thursday evening, February 29, at the Elks' Club, Canton. Dr. S. L. Siegler, Brooklyn, N.Y., was the speaker.—Clair B. King, M.D., secretary.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Dr. James G. Kramer, Akron, spoke on "Present Status of Prophylaxis and Treatment of Common Contagious Diseases", at a meeting of the Belmont County Medical Society, Thursday

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—C. W. Kirkland, M.D., secretary.

HARRISON

Officers of the Harrison County Medical Society for 1940 are: Dr. R. P. Rusk, Cadiz, president; Dr. J. P. Fairchild, Freeport, vice-president; Dr. F. Foster Dye, Cadiz, secretary-treasurer; Dr. A. B. Tubbs, Cadiz, legislative committeeman; Dr. Geo. E. Henderson, New Athens, public relations committeeman; Dr. James A. L. Toland, Jewett, delegate; Dr. Gerald E. Vorhies, Scio, alternate.—F. Foster Dye, M.D., secretary.

JEFFERSON

Dr. C. J. DeLor and Dr. John W. Means, Columbus, spoke on "Medical and Surgical Treatment of Gall Bladder and Liver Conditions", at a meeting of the Jefferson County Medical Society, Tuesday night, February 20, at the Ohio Valley Hospital, Steubenville.

Officers of the society for 1940 are: Dr. Walter A. Cunningham, Steubenville, president; Dr. J. W. Albaugh, Mingo Junction, vice-president; Dr. D. R. Cahill, Steubenville, secretary-treasurer; Dr. E. J. C. Sander, Steubenville, legislative committeeman; Dr. John A. Bradley, Steubenville, public relations committeeman; Dr. S. J. Podlewski, Steubenville, delegate; Dr. John P.

Smarrella, Steubenville, alternate.—D. R. Cahill, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

ATHENS

Officers of the Athens County Medical Society for 1940 are: Dr. C. N. Sanders, Millfield, president; Dr. L. D. Robinson, Guysville, vice-president; Dr. C. R. Hoskins, Athens, secretary-treasurer; Dr. E. LeFever, Glouster, and Dr. H. T. Phillips, Athens, legislative committee; Dr. W. H. Hyde, Nelsonville, and Dr. W. V. Sprague, Chauncey, public relations committee; Dr. T. H. Morgan, Athens, and Dr. B. B. Backley, Jacksonsville, medical economics committee; Dr. B. R. Goldsberry, Athens, delegate; Dr. John R. Sprague, Athens, alternate.—C. R. Hoskins, M.D., secretary.

LICKING

Dr. Phillip T. Knies spoke on "Present Status of Nephritis", at a meeting of the Licking County Medical Society, Tuesday night, February 27, at Newark.—News clipping.

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Company at a dinner meeting of the Muskingum County Academy of Medicine, Wednesday, March 6, at the University Club, Zanesville.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

Following a dinner and business session of the Washington County Medical Society, Wednesday, February 14, at the Lafayette Hotel, Marietta, Dr. R. M. Meredith presented an interesting paper on "The Use of Potassium Sulphocyanate in the Treatment of Hypertension".—Deane H. Northrup, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

HOCKING

Russell H. Knoop, Columbus, representative of the Farm Security Administration, addressed the Hocking County Medical Society on Friday noon, February 23, at the White House, Logan.—News clipping.

SCIOTO

At a meeting of the Hempstead Academy of Medicine, Monday evening, March 11, at Portsmouth, Dr. Samuel Iglauer, Cincinnati, spoke on "Bronchoscopy and Esophagoscopy". A motion picture of the Graf Spee was shown.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

DELAWARE

Dr. George F. Moench, city and county health commissioner, explained a new plan for the medical care of the indigent, at a meeting of the Delaware County Medical Society, Tuesday, February 20, at Bun's Restaurant, Delaware. The society decided to elect a three-member advisory committee by mail, to work with Dr. Moench in establishing the plan. Dr. C. C. Sherburne, Columbus, Councilor for the Tenth District, and George H. Saville, assistant executive secretary, of the Ohio State Medical Association, were guests at the meeting.

FAYETTE

"Gastrosocopy" was the subject of an address made by Dr. Phillip T. Knies, Columbus, at a meeting of the Fayette County Medical Society, Thursday night, March 14, at the Washington Hotel, Washington C. H. Dr. C. C. Sherburne, Columbus, Tenth District Councilor, attended the meeting.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during March:

March 4—Panel discussion on "Pneumonia",

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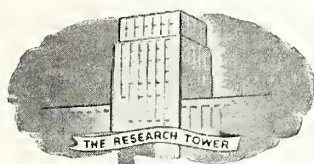
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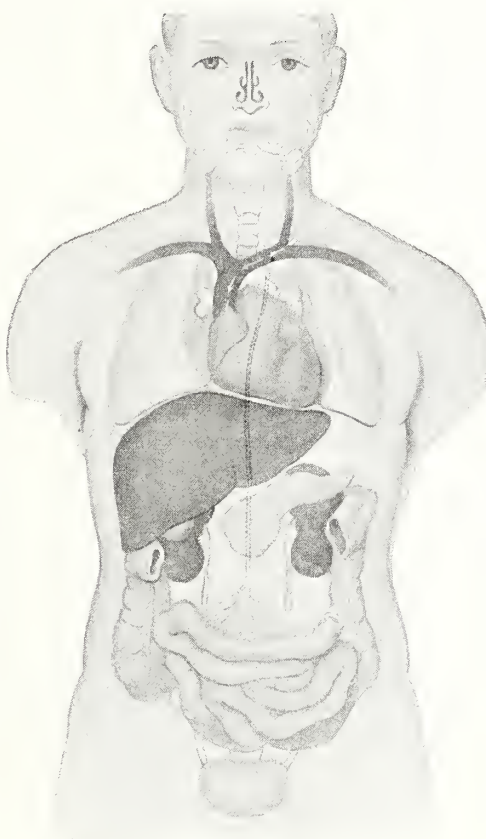


This page is the fourth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the April 6 issue of The Journal of the American Medical Association.

Metabolic Fate of Vitamin A and Carotene

Vitamin A and carotene are absorbed into the lacteals with the fat of the food ingested. It is generally agreed that vitamin A in large quantities is more speedily absorbed than are similar quantities of carotene.

The fat-soluble vitamins enter the general circulation by way of the thoracic duct. In the liver, vitamin A and carotene are taken up by the Kupffer cells, where carotene is slowly converted to vitamin A. Experimental studies indicate that vitamin A is stored in the liver in certain species, including man.



The Causes of Vitamin A Deficiency

Vitamin A deficiency may be caused by inadequate intake of the vitamin or provitamin. Absorption may be retarded, depending on the condition of the alimentary tract. For example, mineral oil in the intestine diminishes absorption of carotene although not of vitamin A. Conversion of carotene to vitamin A in the liver may not occur, as in diabetes mellitus, where evidence indicates that the rate of transformation of carotene is diminished, and vitamin A deficiency may develop even if the diet provides the provitamin in amounts ordinarily sufficient.

Effects of Vitamin A Deficiency

Vitamin A deficiency produces pathologic changes in many organs. The process is one of alteration of epithelial surfaces — keratinizing metaplasia of the epithelium of the urinary bladder, the ureters, the ducts of the salivary glands and the pancreas, the trachea, and the nose. In the eye, vitamin A deficiency interferes with restoration of visual purple, resulting in night blindness. Prolonged vitamin A deficiency produces xerophthalmia. Administration of adequate quantities of vitamin A to patients manifesting symptoms of deficiency usually checks the progress of epithelial alteration.



Dr. C. S. Hyer, moderator; Dr. Huston F. Fulton, Dr. Louis Mark, Dr. R. M. Hartwell and Dr. L. H. Van Buskirk.

March 14—"The Importance of the General Practitioner in Cancer", Dr. Jay McClean, discussion lead by Dr. Horace B. Davidson.—Bulletin.

March 18—"Endocrine Therapy in General Practice", Dr. Elmer L. Sevringhaus, associate professor of medicine, University of Wisconsin Medical School, Madison.

MADISON

Dr. I. B. Harris, Columbus, spoke on "Cancer of the Lower Bowel", at a meeting of the Madison County Medical Society, Thursday, February 29, at London. The meeting was attended by Dr. C. C. Sherburne, Columbus, Councilor for the Tenth District.

PICKAWAY

Dr. Robin C. Obetz, Columbus, spoke on "Addison's Disease", at a meeting of the Pickaway County Medical Society, Friday, March 1, at Circleville. The session was attended by Dr. C. C. Sherburne, Columbus, Councilor for the Tenth District of the Ohio State Medical Association.

ROSS

At a meeting of the Ross County Academy of Medicine, Thursday, March 7, at Chillicothe, Dr. Frank W. Harrah, Columbus, discussed "Prostatic Resection", and Dr. J. H. Warren, Columbus, spoke on "Diaphragmatic Hernia". Dr. C. C. Sherburne, Columbus, Councilor for the Tenth District, visited the society.

UNION

Dr. C. C. Sherburne, Councilor for the Tenth District of the State Association, lead a discussion of organization matters at a meeting of the Union County Medical Society, Tuesday, March 12, at Marysville.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

An interesting motion picture dealing with endocrinology was shown at a meeting of the Ashland County Medical Society, Friday evening, March 8, at the Ashland Country Club. A busi-

ness session followed.—H. Wayne Smith, M.D., secretary.

LORAIN

Dr. James A. Doull, professor of hygiene and public health, Western Reserve University School of Medicine, Cleveland, spoke on "Etiology of Influenza", at a dinner meeting of the Lorain County Medical Society, Tuesday, March 12, at the Hotel Graystone, Elyria.—I. L. Levin, M.D., secretary.

RICHLAND

A motion picture on "Gonadogen" was shown by the Upjohn Company at a joint meeting of the Richland County Medical Society and the Mansfield General Hospital staff, Friday, March 8, at the hospital.—D. D. Deeds, M.D., secretary.

American College of Physicians Will Meet April 1-5 in Cleveland

The Twenty-Fourth Annual Session of the American College of Surgeons will be held at Cleveland, Monday through Friday, April 1-5. All qualified physicians are cordially invited. Fellows and associates of the College and members of the Medical Corps of the Public Services of the United States and Canada will be admitted without registration fee. Non-members of the college will pay a fee of \$12 at the time of registration. This postgraduate week in internal medicine and allied specialties will include general sessions, special lectures, panel discussions, hospital clinics and demonstrations. Dr. Howard T. Karsner, Cleveland, is general chairman for the meeting. Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, is to give an address of welcome in behalf of the Ohio profession.

Special Lecture by Dr. Cecil

The New York Polyclinic Medical School and Hospital announces a special lecture by Dr. Russell L. Cecil, professor of internal medicine, on Wednesday, April 10, 2:30 P.M., on "Pneumonia—The Clinical Status of Classification and Types. Modern Methods of Diagnosis. Rabbit Serum versus Horse Serum. Discussion of Sulfapyridine and the Newer Sulfonamide Derivatives". The School has established a special clinic for the hard of hearing, under the direction of Dr. Samuel J. Kopetzky. New patients are received on Tuesday and Thursday at 2:00 P.M.

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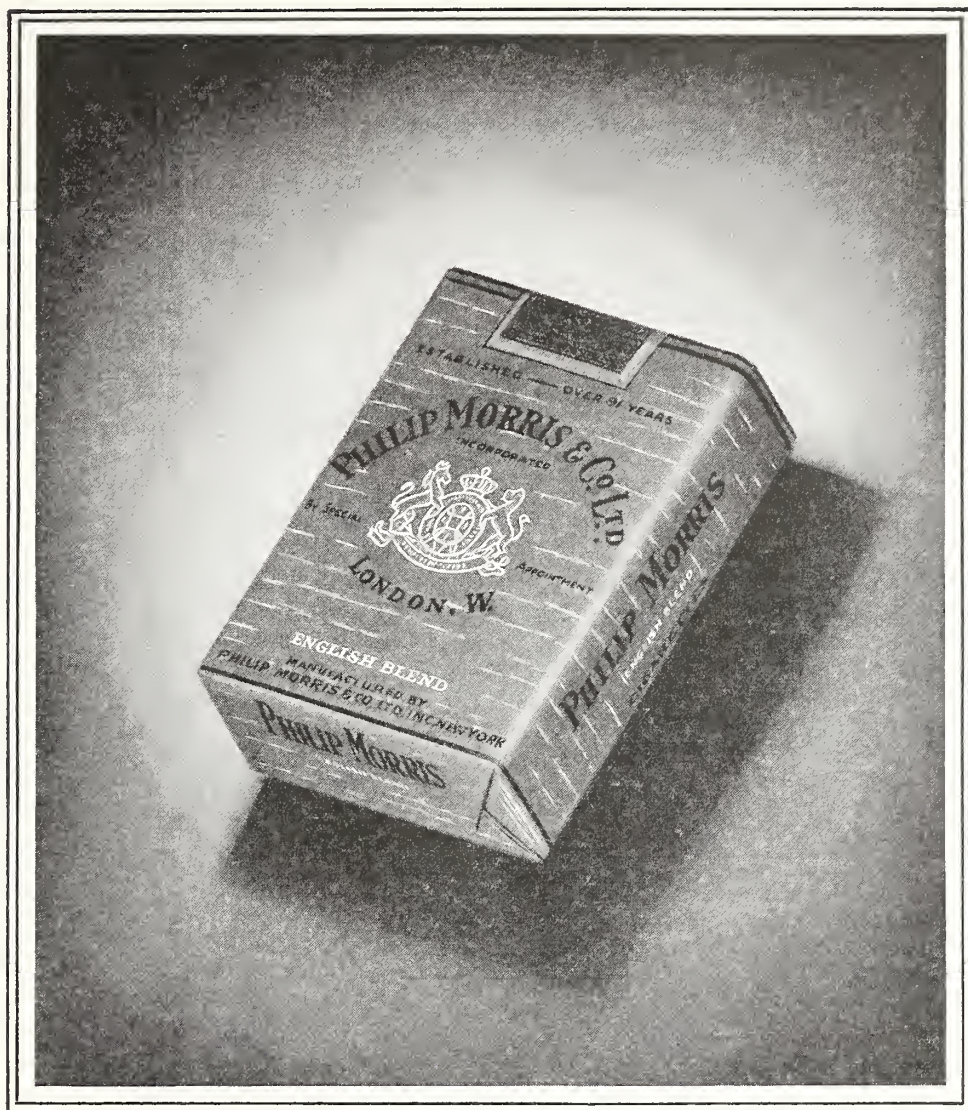
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Excellent Meeting Held at Jackson by Ninth Councilor District

Approximately 60 physicians and their wives attended a meeting of the Ninth Councilor District of the Ohio State Medical Association at the Cambrian Hotel, Jackson, March 7. Following luncheon, Dr. Parke G. Smith, Cincinnati, President of the Association, spoke on "Present Trends in Organized Medicine", and Charles S. Nelson, Executive Secretary, commented on some of the Association's activities. During a short business session, Dr. Joseph S. Rardin, Portsmouth, a past-president of the Association, told of the first Ninth District meeting 40 years ago. Five other physicians present had attended that initial session.

Scientific addresses were made by two physicians from Henry Ford Hospital, Detroit: "Role of the Endocrine in Gynecology", Dr. J. P. Pratt, with discussion led by Dr. Anne Marting, Ironton; and "Problems in the Management of the Diabetic Patient", Dr. Daniel Foster, with discussion led by Dr. Leo C. Bean, Gallipolis.

The Committee on Arrangements responsible for this very successful meeting consisted of the district officers, Dr. W. R. Riddell, Jackson, chairman; Dr. J. L. Frazer, Wellston, secretary; Dr. G. A. Parry, Dr. Wm. B. Taylor and Dr. C. C. Fitzpatrick, Jackson. Wives of physicians who attended were entertained by Mrs. Riddell, Mrs. Frazer and Mrs. Parry. Next meeting of the district society will be held in Portsmouth.

Among physicians who registered at the meeting were:

Drs. Tunis Nunemaker, Harry F. Rapp, Oscar Micklethwaite, Gilbert Micklethwaite, Dow Allard, W. M. Singleton, A. L. Test, Oral D. Tatje, Charles M. Smith, J. P. McAfee, A. P. Hunt, Joseph S. Rardin, V. E. Fowler, William A. Quinn, Ross M. Gault, Phillip D. Weems, Portsmouth; V. V. Smith, Wm. A. French, H. S. Allen, W. F. Marting, Anne D. Marting, O. H. Henninger, W. Ray Swango, F. R. Stewart, Ironton; W. R. Evans, O. M. McLaughlin, J. S. Hunter, W. B. Taylor, C. C. Fitzpatrick, W. R. Riddell, J. J. McClung, J. M. Harbarger, Jackson; Mel D. Smith, J. L. Frazer, Wellston; W. H. Matuska, D. L. Beers, O. A. Vornholt, Gallipolis; R. M. Andre, L. E. Wills, Waverly; Milton Levine, Geo. D. Blume, New Boston; Marlin R. Wedemeyer, Brinton J. Allison, Oak Hill; P. A. Jividen, Rutland; L. B. Hatch, South Webster; C. H. Creed, Athens; W. C. McCann, Minford; W. B. Lacock, Logan; I. P. Seiler, Piketon.

Sidney—New staff officers of Wilson Memorial Hospital are: Dr. J. F. Conner, president; Dr. R. F. Paul, vice-president; Dr. Russell Wiesinger, secretary, and Dr. A. B. Gudenkauf, representative of the staff at meetings of the hospital board.

Fremont—Dr. Edwin W. Baker was presented with a 50-year medal at a recent meeting of the local Masonic Lodge.

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Additional Officers Needed by Army Medical Corps for Active Duty

The United States Army is in need of additional medical officers for active duty. Two groups of medical officers are desired. One group, under the Air Corps Expansion Act, may be ordered to active duty for the balance of the fiscal year, with the possibility of extension for one additional year. These officers need not be under 35 years of age, and need not be recent graduates, but must hold the grade of captain or lieutenant. The second group, under the expansion program to raise personnel of the Army to 227,000, are to be ordered to active duty for a period of one year. Officers in this group need not be under 36 years of age, but must be in the grade of either captain or lieutenant.

This extended active duty may mean service in one of the Army's general hospitals, station hospitals, air fields or large camps in the South. Officers should express their preference as to the type of service they desire; also the section of the country in which they would prefer active duty. Consideration will be given to such requests in so far as is consistent with the policy of the War Department and the exigencies of the service.

The opportunity to enter Army service in the above capacities is open also to physicians in good standing and graduates of Class A medical schools, who are not now in the Medical Reserve Corps, provided they are physically qualified.

The pay allowances for a married first lieutenant amount to approximately \$263 per month; for a single first lieutenant, \$225; for a married captain, \$316; for a single captain, \$278. In most cases the above pay and allowances would apply inasmuch as Government quarters are not usually available for officers on extended active duty. In the few instances where Government quarters are available, the amounts would be \$40, \$60, \$60 and \$80 less per month, respectively.

Requests for additional information should be addressed to the local Organized Reserve Headquarters, or the Corps Area Surgeon, Headquarters, Fifth Corps Area, Fort Hayes, Columbus, Ohio.

Allergists Meet in Cleveland

Members of the Ohio Valley Allergy Society were guests of the Cleveland Allergy Society at a meeting at the Hotel Statler, Cleveland, Saturday evening, March 30, and Sunday, March 31. Ohio physicians who participated in the program included: Dr. M. Weitz, Dr. Argyl J. Beams, Dr. J. W. Thomas, Dr. I. M. Hinnant, Dr. Milton B. Cohen, Dr. Neil T. McDermott, Cleveland; Dr. Albert R. Zoss, Dr. Carl A. Koch, Cincinnati; Dr. Wm. F. Mitchell, Columbus; Dr. Carl D. Marsh, Springfield, and Dr. Gerald C. Grout, Dayton.

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Common Errors in Diagnosis of Heart Conditions

A. CARLTON ERNSTENE, M.D.

ACCURACY in the recognition of organic heart disease depends not only upon the detection of abnormal findings on physical, roentgenologic, and electrocardiographic examination, but also upon the proper evaluation of symptoms. Although the information obtained from the various types of examinations is not always clear cut and unequivocal, mistakes in diagnosis result more often from misinterpretation of symptoms than from shortcomings of the objective studies. The increased interest in the problems of heart disease during the past 25 years has resulted in a corresponding increase in the incidence of correct diagnosis, but errors still are made with sufficient frequency to make a discussion of those that are most common a subject of importance.

PRECORDIAL PAIN AND DYSPNEA

The most common error in cardiac diagnosis consists of attributing symptoms to organic heart disease when no heart disease exists. This mistake often results from misinterpreting the significance of precordial pain or from failure to analyze the patient's complaint of shortness of breath. Pain in the precordial area occurs much more frequently in the absence of organic heart disease than in association with it. The most common form of true cardiac pain is that of angina pectoris but this pain almost always originates in the substernal region and not in the precordial area. The pain may spread to the precordium, however, and rather infrequently it may have its initial location there. In the latter instance there is almost always prompt radiation to the substernal region. This feature is of great assistance in distinguishing the pain of angina

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pectoris from less important types of precordial discomfort, for while the benign forms of precordial pain may at times radiate to the left shoulder and even down the left arm, radiation to the substernal region practically never occurs. It is also important to remember that, in its characteristic form, the pain of angina pectoris is of short duration and is relieved promptly by the administration of glyceryl trinitrate.

The most common form of benign precordial pain is the result of neurocirculatory asthenia. In this condition, the pain is described by the patient as dull or aching in character, or merely as a sense of heaviness. Associated with it there may be occasional or frequent twinges of sharp, knife-like pain. Neurocirculatory asthenia is characterized further by dyspnea and palpitation on limited exertion, weakness, fatigue, nervousness, and tremulousness. The symptoms usually develop for the first time during adolescence or early adult years and their origin often appears to be related to some unusual exertion, or to an acute infection such as influenza, or to a period of prolonged nervous strain. Physical examination reveals evidence of an unstable sympathetic nervous

system, and this is of great importance in differential diagnosis. Flushing of the face, neck, and upper chest is frequently present, the hands are cool and clammy, and there is profuse sweating in the axillae. The heart is not enlarged, but the apex impulse is forcible and systolic murmurs are often heard over the base and less commonly at the apex. Sinus arrhythmia usually is present. Moderate exertion causes an undue rise in the respiratory and heart rate and after completion of the exercise, the return to the resting level is delayed beyond the normal.

Precordial pain similar to that experienced by patients with neurocirculatory asthenia may also occur in women as a part of the menopausal syndrome and is at times complained of by individuals who have arterial hypertension but no evidence of organic heart disease. To attribute pain of this kind to angina pectoris is a serious error which may result in the development of a severe anxiety neurosis and even semi-invalidism.

Many individuals with neurocirculatory asthenia or in emotionally unstable states complain of shortness of breath but on closer questioning are found to mean that they sigh frequently. The statement is often made that there is difficulty in getting the air down far enough. Sighing respiration is always functional in origin and is never due to organic heart disease. The possibility of this type of disturbance should be kept in mind in all patients who complain of difficulty in breathing.

THE GASTRO-INTESTINAL MANIFESTATIONS OF CARDIOVASCULAR DISEASE

Errors in cardiac diagnosis not infrequently result from failure to recognize that gastrointestinal symptoms may be due to cardiovascular disease. Anorexia, nausea, vomiting, and pain in the epigastrium and right upper quadrant of the abdomen are common manifestations of myocardial failure and are due to congestion of the liver and the mucosa of the stomach and intestinal tract. Dyspnea and orthopnea are present, however, and these symptoms together with a careful physical examination should lead to a correct interpretation of the patient's abdominal complaints. The heart is usually enlarged and its rhythm frequently is irregular. There generally is evidence of more or less extensive passive congestion of the lungs. The jugular veins are engorged and remain distended even when the patient is propped up in bed; the liver is enlarged and tender, and there is a variable degree of edema of the legs and over the lower back.

Although the pain of angina pectoris is located typically in the substernal region, it may occasionally be situated in the epigastrium. At times the patient complains of a sensation of distention or gas in the upper abdomen rather than of

actual pain, and in rare instances repeated attacks of nausea and vomiting constitute one of the chief features of the disease. Symptoms of this kind may be attributed at first to primary gastro-intestinal disease, but careful questioning and thorough physical examination usually reveal things in their proper light. In all but the exceptional case, there will be a history of relationship between the appearance of symptoms and some form of exertion or an emotional upset. Many patients will have observed that although even moderate activity soon after eating will cause symptoms, all discomfort can be avoided by limiting the size of the meals and by resting after eating. Furthermore, although there may be no actual pain in the substernal area during the time that symptoms are present, there almost always is at least a sensation of fullness, pressure, or gas in this location. Rest usually affords prompt relief from the symptoms, and vomiting, when it occurs, has a similar effect. Glyceryl trinitrate also has a specific action. On physical examination, the heart may or may not be enlarged, and its rhythm usually is regular. The arterial blood pressure frequently is elevated, and electrocardiograms often reveal evidence of coronary artery disease.

The pain of coronary thrombosis may be situated entirely in the upper abdomen for several hours, and on examination there may be muscle spasm and tenderness in the epigastrium or right upper quadrant. These features and the occurrence of fever, leukocytosis, vomiting, and at times jaundice may strongly suggest biliary colic, perforated peptic ulcer, acute intestinal obstruction, or acute pancreatitis. As an aid in differential diagnosis, it is important to remember that many patients who have coronary thrombosis have had earlier attacks of typical angina pectoris. Careful questioning upon this point therefore is indicated. The pain of coronary artery occlusion usually is accompanied by dyspnea while dyspnea is not commonly present in patients who have acute surgical conditions in the abdomen. Furthermore, although the pain of coronary thrombosis may be confined to the epigastrium for several hours, it is much more common to have at least some spread to the substernal region within a short time of its onset. Radiation of this kind rarely occurs in abdominal disease. Physical examination soon after the onset of coronary thrombosis frequently reveals gallop rhythm and great weakness of the heart tones. Pulsus alternans may be detected while recording the blood pressure, and in patients with extensive myocardial infarction, rales may appear over the base of the lungs within a short time. A pericardial friction rub is detected in 10 or 15 per cent of all patients with myocardial infarction and usually develops within one to three days after the onset of symptoms. Its oc-

currence in a patient who has had symptoms that might be due to coronary thrombosis is of great diagnostic importance. The electrocardiogram may show changes characteristic of myocardial infarction within a few hours after the onset of symptoms.

ERRONEOUS ATTRIBUTION OF SYMPTOMS TO CORONARY ARTERY DISEASE

In the past, in discussions of the differential diagnosis of coronary artery disease, emphasis has been placed almost entirely upon the fact that angina pectoris and coronary thrombosis may closely simulate abdominal disease. Of late, however, a few observers have pointed out the possibility that errors may be made in the reverse direction and have reported cases in which symptoms due to gallbladder disease, perforated peptic ulcer, or diaphragmatic hernia suggested coronary artery disease. The avoidance of mistakes of this kind must rest upon a general realization of the possibility of such confusion and upon a careful evaluation of the patient's symptoms and physical findings.

Pulmonary embolism and dissecting aneurysm of the aorta may give rise to clinical pictures which closely resemble that of acute coronary occlusion. Sudden occlusion of a considerable part of the pulmonary circulation characteristically causes severe dyspnea associated with substernal oppression and the rapid development of a state of shock. There may or may not be pleural pain at the onset. Fever and leukocytosis usually appear within the first 24 hours. There may or may not be blood-tinged sputum. McGinn and White¹ recently emphasized the fact that sudden occlusion of a large pulmonary artery causes prompt dilatation and failure of the chambers of the right side of the heart and termed this cardiac disturbance the acute cor pulmonale. They reported nine cases of acute cor pulmonale and described the clinical and electrocardiographic features which differentiate the condition from coronary thrombosis. The most important clinical features consist of an increased pulsation palpable in the second left interspace adjacent to the sternum, accentuation of the pulmonary second sound, the frequent occurrence of gallop rhythm over the pulmonary area, and the occasional presence of a friction rub in the second, third, and fourth left interspaces adjacent to the sternum. The friction rub is believed to result from irritation of the pericardium by the dilated pulmonary artery and right ventricle.

Dissecting aneurysm of the aorta is characterized by the sudden onset of severe crushing or tearing pain in the anterior chest, often radiating to the back and legs. The pain usually lasts for 48 hours or longer and frequently is present to a greater or lesser degree until death occurs. At the onset, repeated injections of morphine give only partial and gradual relief. Fever and

leukocytosis usually develop within 24 hours. White, Badger, and Castleman² recently discussed the differential diagnosis of dissecting aortic aneurysm and coronary thrombosis. They direct attention to the fact that, in dissecting aneurysm, the severe pain is abrupt in onset in contrast to its more gradual evolution in coronary occlusion. The frequent radiation of pain to the back and legs also is of diagnostic importance. Particular emphasis is placed, however, upon the maintenance of hypertension throughout the acute illness, the lack of diminution in the quality of the heart sounds, and the absence of coronary T-waves in repeated electrocardiograms.

HYPERTHYROIDISM MASKED AS HEART DISEASE

In certain cases of hyperthyroidism, symptoms and signs of thyrotoxicosis are not at all in evidence and the clinical picture is dominated by cardiovascular manifestations. Exophthalmos and other abnormal eye signs are absent, and there is little or no enlargement of the thyroid gland. The presence of so-called "latent hyperthyroidism" usually is overlooked for some time, and the patient is treated, with little or no success, as if he had primary cardiovascular disease. A careful history and physical examination, however, reveal certain features which should suggest the possibility of thyrotoxicosis. Nervousness, tremor, diminished tolerance to heat, and weight loss in spite of a satisfactory appetite usually are present at least to a slight degree. Increased warmth and moisture of the skin, a peculiar flushed appearance of the face and neck, and the presence of a hyperactive heart with a snapping first sound also are helpful diagnostic features. Of particular importance, however, is the occurrence of auricular fibrillation either in paroxysms of variable duration or in its continuous form. Frequently, it is this that first suggests the true nature of the illness. Several observers have expressed the opinion that the presence of auricular fibrillation always should lead one to consider the possibility of hyperthyroidism, even though obvious organic heart disease also is present.

CHRONIC COMPRESSION OF THE HEART

Chronic compression of the heart due to adhesive mediastinopericarditis is a condition which can be recognized only with difficulty in its earlier stages, but should offer little trouble when the physical signs are well developed. Even in advanced cases, however, the true state of affairs often is overlooked, and this is to be particularly regretted in view of the brilliant results which follow successful resection of the pericardial scar. As knowledge of these results is more widely disseminated, more interest undoubtedly will be aroused in the condition, and the diagnosis will be made more often. The most helpful diagnostic features consist of the presence of congestion

in the pulmonary and peripheral venous circulation in an individual with a diminished pulse pressure and little or no enlargement of the heart. The peripheral venous pressure is increased, the liver is enlarged, and except in the early stages, ascites with or without edema of the legs is present. Fluoroscopic examination and roentgenkymograms show diminished amplitude of the cardiac pulsations, and in certain patients calcific deposits in the pericardium are readily demonstrable.

SUBACUTE BACTERIAL ENDOCARDITIS

Subacute bacterial endocarditis usually is recognized without difficulty in its well developed stages. In the earlier phases, however, before the appearance of petechiae, splenomegaly, embolic accidents, and a septic state, the condition may be entirely overlooked. The possibility of this disease should be borne in mind in every patient with congenital or valvular heart disease, and particularly with aortic valvulitis, who complains of persistent, unexplained weakness or malaise and in whom low grade fever is recorded. Blood cultures should be made in all such cases, and one should not be content with a single failure to obtain organisms.

ERRORS IN PHYSICAL EXAMINATION

Before concluding this discussion, mention should be made of a few rather common errors of omission in physical examination. The fact is frequently overlooked that cardiac murmurs which are heard with difficulty or not at all with the patient in one position may be detected with ease in another position. The characteristic diastolic murmur of mitral stenosis may be entirely overlooked when the patient is examined in the sitting or standing position or lying on his back. The most favorable position for detection of this murmur is with the individual turned on his left side. The diastolic murmur of aortic insufficiency may not be detected with the patient in the recumbent position but may be readily apparent in the sitting posture and especially if the individual leans slightly forward and stops breathing for a few seconds at the end of expiration. Finally, in the examination of all patients in whom the arterial pressure is found elevated in the upper extremities, the femoral arteries should be palpated. One of the characteristic findings in coarctation of the aorta is a delayed and diminished pulsation in the femoral arteries, in the presence of hypertension in the upper extremities. This sign may be easily detected even when the other features of the condition, such as tortuous, pulsating collateral arteries over the back, are not present. Coarctation of the aorta is not as rare as hitherto has been supposed, and the simple act of palpating the

femoral arteries will enable one to recognize cases that otherwise might be missed entirely.

SUMMARY

Errors in cardiac diagnosis may be made either (1) by attributing symptoms to organic heart disease when no heart disease is present, or (2) by failing to recognize the cardiovascular origin of the patient's complaints. Mistakes of the first kind often result from incorrect interpretation of precordial pain or from failure to distinguish between true dyspnea and sighing respiration. Certain abdominal and intrathoracic conditions at times give rise to symptoms highly suggestive of coronary artery disease, and in a small group of patients with hyperthyroidism, cardiovascular symptoms and signs may so dominate the clinical picture that a diagnosis of some form of primary heart disease is made. The second kind of mistake most commonly results from failure to remember that gastro-intestinal symptoms may overshadow all other complaints in certain cases of congestive myocardial failure or coronary artery disease. Less frequently, the error results from overlooking significant physical findings in cases of valvular heart disease, chronic compression of the heart, or coarctation of the aorta, or from failure to appreciate the significance of the early symptoms of subacute bacterial endocarditis. The avoidance of these various errors depends upon thorough physical, roentgenologic, and electrocardiographic examination, and to an even greater extent upon careful analysis of the patient's symptoms.

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Care of Skin in New-Born Infant

The term "pustular dermatitis of the newborn" is to be preferred over "impetigo" or "pemphigus neonatorum" because the lesions may vary in size, type, contagiousness, distribution and course.

Aseptic technique and proper procedures both in the nursery and maternity division, plus prompt and adequate isolation are most important in lowering the incidence of pustular dermatitis and decreasing the number and severity of epidemics of this condition.

The rules of "Keep the baby away from infection" and "Keep infection away from the baby" as emphasized by Dr. Herman N. Bundesen are paramount.—Reuben I. Klein, M.D. and Philip L. Aries, M.D., Chicago; *Ill. Med. Jr. Vol. 77, No. 4, April, 1940.*

Some of the Psychiatric Problems Encountered by the General Practitioner

DOROTHY E. DONLEY, M.D.

THE general practitioner may, with just cause, divide his psychiatric problems into two groups, the psychiatric complaints of his patients, and the theories and vocabulary of his psychiatric colleagues. Under such circumstances one may expect a psychiatrist's discussion to complicate matters still further. But it should not increase the confusion, to review, from a conservative point of view, some outstanding syndromes and several urgent problems of social significance within the general practitioner's broad field of service.

ANXIETY ATTACKS

The following situation is familiar to the general practitioner. One morning, in the early hours, he received a call from mild Ed J— in the next block. Mrs. J—, chairman of the Women Voter's League, still under thirty, a bit unusual in personality, but never sick a day in her life, had a "heart attack". Examination showed Mrs. J— alert but fearful, awaiting the physician's decision, symptom-free by the time of his examination, but willing to tell of her illness, particularly the fear of dying. Cardiac pathology was lacking. The doctor radiated sympathetic reassurance, gave a sedative, and retired, having adequately treated an episode in the course of a common form of psychoneurosis, the anxiety state.

It may be of assistance in handling psychopathology of this type to review observations from 48 cases treated at the Henry Phipps Psychiatric Clinic.¹ Anxiety attacks were invariably exacerbations of unrelieved tension states due to insecurity in love, sex, marriage, finances or health. Sexual frustration was found in two cases. The attacks tended to begin in early life, and history of psychiatric disorder in the family background was usual. The type of personality so afflicted was not constant. In one-third of the cases habitual hypochondriasis was present. Egotism, sensitiveness to the opinion of others, and ambition were noteworthy personality traits. In any attack the common feature was one or other form of the ordinary reaction to danger—frantic fear with palpitation, choking, dry mouth, cold sweat, numbness, epigastric distress and urge to defecate. Both para- and orthosympathetic systems seemed to be involved.

Bearing in mind these personality and familial features the general practitioner should find dif-

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ferential diagnosis facilitated. The physician must remain aware of the probability of situational strain, particularly as the patient is not conscious of it spontaneously, and frequently denies even an obvious setup. Location of the source of strain is important therapeutically, since changes wrought in situation by time and circumstance seemed to be the most important factors in treatment. Psychoanalysis was not recommended. The patient and physician talked it over. Relationship between the source of tension and the attacks was pointed out. In the chronic cases, changing the environment was practically helpful. The rich man's son-in-law was assisted in getting a job and hobby of his own. The Catholic wife, whose husband insisted on contraception, became pregnant. The sixteen-year-old boy whose widowed mother was about to remarry, was shown how he might direct his attention to establishing a home of his own. Cures were not phenomenal. In general the physician as well as the patient should be prepared for, and consequently less disturbed by a recurrence of these attacks. They are considered a deeply ingrained constituent of the constitution, a sort of trigger escape mechanism.

HYPOCHONDRIASIS

Hypochondriasis is a psychiatric complaint that rests for diagnosis with the internist and usually presents itself first to the general practitioner. It is defined by the National Committee of Mental Hygiene as "those cases that show essentially an obsessive preoccupation with the state of their health or of various organs with a

variety of somatic complaints which are not relieved by demonstration of a lack of pathology. Occurring frequently in the involutional period they are to be differentiated from involutional melancholia only by the absence of a marked depression and agitation with self-condemnation. Hypochondriacal complaints may be a symptom of dementia praecox". Thus hypochondriasis, clearly proved by exclusion of organic pathology, needs further evaluation in the setting in which it exists.

Hypochondriasis may mask a serious depression. Management in such cases must be cautious. It has been found wise to accept the patient's evaluation of his physical discomfort, and to look for weight loss, late afternoon and evening improvement in personality function, and insomnia, and treat the whole symptomatically, with sedatives, cathartics, vitamins, food and occasionally, benzedrine sulphate in the early morning. Even then there is grave danger that delusions of guilt or complete hopelessness may replace delusions of body ailments, and suicidal attempts complicate the case. The physician must be particularly on his guard to preserve a sympathetic attitude. It is helpful to remember when improvement under a rational regime is slow, that the pathological depression is considered by some psychiatrists to be a self limiting disease. Frequently a gain in weight indicates a remission.

Hypochondriasis is frequently seen as an early symptom of dementia praecox. The young girl may insist that she is tired, rundown, and sick. Panic attacks of catatonic dementia praecox are frequently associated with hypochondriacal concern, particularly for the genitalia. It may be helpful to remember that hypochondriasis "by proxy" is found in dementia praecox. The relatives of the patient insist on the organogenic nature of the illness. Because the boy masturbated they insist that he be circumcized. Because the girl does not menstruate, it must be her ovaries. This latter situation brings us to a discussion of the endocrine therapies. Much can be said, but very little has been proved, concerning the causal relationship between endocrinopathy and psychiatric syndromes. It is safe to say that, in every case, psychotic or psychoneurotic, where specific defect is shown by the best methods known and where means of therapy are available, substitutive glandular therapy should be given as part of the symptomatic treatment.

CONVULSIVE DISORDERS

Problems in the management of convulsive disorders may fall to the lot of the general practitioner. The use of phenobarbital and dehydration has been found particularly effective in the treatment of ideopathic epilepsy, and there is cleancut evidence in the current issue of the Archives of Neurology and Psychiatry that the use of the

drug over a period of two years in doses of 1½ to 5 grains daily in no way impairs the intelligence.² However, the personality pattern supposedly characteristic of the epileptic, the egocentric, unstable, fawning or bitterly condemning person, with or without convulsions, is a psychiatric problem. Sodium diphenyl hydantoinate, dilatin, may be useful in this regard.³ It permits control of convulsions with less depression of the emotional and metabolic center of the midbrain. Used with phenobarbital, its synergistic action permits reduction of dosage.⁹

PEDIATRICS

The behaviour problems of children and adolescents is a field where, in many cases, the general practitioner's advice is most naturally accepted, and most effective. A recent study entitled "Problems of Juvenile Aberrant Sexual Behaviour"⁴ places blame for the development of such behaviour on the home, church, school and community. These "have failed to exert a practical and healthy influence". The family doctor is not the least of the community assets. The most helpful fact in the treatment of such complaints as tantrums, hypochondriasis, daydreaming, masturbation, restlessness, truancy or stealing is a thoughtful consideration of the child as a real person—not merely the son of a contemporary. Solution of these problems takes time. Not only the child must be treated but the family and home situation. The parents and the child over two years of age should be interviewed separately, chiefly to avoid a "between adult" discussion of his difficulties in his presence. The textbook, "Child Psychiatry", by Leo Kanner is encyclopedic in the field.⁵

GERIATRICS

The psychiatric problems of geriatrics represent no small part of the field of the general practitioner. Dr. Llewellys Barker found that patients over 60 formed 10 per cent of a practice in internal medicine, and that the most frequent complaints in the field of geriatrics were referable to the nervous system.⁶ Of 240 cases there were four senile psychoses, six organic psychoses, and 43 simple depressions and psychoneuroses. Management of the disorders of personality in the aged depends to a significant degree on the underlying personality. Psychoanalysis is not indicated. The gregarious instinct is strong in all ages, but the turmoil of youthful and adult struggling makes a poor environment for the aged, serving to emphasize their infirmities. From practical experience it appears that the grouping together of old persons where living can be made less complex, results in a happy adjustment. This does not mean institutionalization in a large scale, nor mental hospitalization. The delirium of cerebral arteriosclerosis, episodic

as it is, is serious and calls for excellent nursing but it should not result in commitment.

INSTITUTIONAL THERAPY

There is one urgent problem which must be the concern of the general practitioner because his active interest is vital to its solution. I am speaking of the adequate institutional care of the mentally ill. Too little emphasis has been placed on the fact that the appeal, the demand, the pressure on public opinion, so constantly needed to maintain standards of treatment, had best come from the medical profession, not from social or political agencies. The appeal, to be most effective, should come from the general practitioner. In the first place he must be the spokesman for the patient and his family so long as sensitivity about mental illness persists. In the second place he must be the spokesman for the psychiatrists, because the effectiveness of their pleas is weakened by the fact that their interest cannot be purely philanthropic. Too many citizens feel with the seventeenth century dramatist who makes his psychiatrist say "Oh wife, we eat, we are clothed and live—Just at the lawyer's haven we arrive—By madmen and fools we both do thrive". Psychiatrists are not idle. They are working frantically with limited resources to keep a hair's breadth ahead of precocious publicity. It is interesting to learn from an analysis over a ten year period of 77 cases of dementia praecox that 44 per cent of the cases recovered without any form of the shock therapy, now so prevalent. The greatest factor indicating good prognosis, was found to be a sympathetic and protective environmental situation offering opportunity favorable to readjustment at a lower level of usefulness or a comfortable acceptance of semi-invalidism.⁷

What constitutes adequate care for the mentally ill is concisely put in a paper by Doctors Hamilton and Kempf entitled, "Meeting the Needs of the Patient During the First Year of Residence in a Mental Hospital."⁸ There is an alarming contrast in the attention given by the community to an acute medical or surgical illness and that given the mentally ill who, because he is unreasonable, or litigious or violent, has to have his freedom curtailed.

A minimum setup requires that the doors of a good hospital be opened to the patient on the advice of his family physician on no severer terms nor more humiliating ones than those of a general hospital. The unwilling, forced to the hospital, should not have the opportunity to think of their hospitalization as a jail sentence, and mental illness as a crime. The patient's first contact with the nursing personnel should encourage him in the belief that people about him are competent, kind, and interested in his difficulties. This service to acute mental illness can be given by the psychiatric service of a general hospital as

well as the receiving unit of a state hospital. It need not be large or completely equipped but it connotes to the patient and his family a hopeful attitude.

Again the general practitioner can afford to be reminded that active interest in institutional medicine offers him additional insight for solution of the problem of socialized medicine, inasmuch as this field offers an experimental situation analogous in many respects to the proposed plans for state control of medicine.

LITERATURE AND THE PRACTITIONER

The general practitioner is being wooed on all sides by his psychiatric colleagues. Special journals now aim at making a good working adjustment between the man in general medicine and the psychiatrist. *Psychosomatic Medicine* is a monthly journal whose object is to study in their interrelationships the psychological and physiological aspects of all abnormal and normal functions and thus to integrate somatic and psychotherapy. It has a Freudian background. More especially directed at the general practitioner is "*Diseases of the Nervous System*" whose editorial staff consists of those identified with the "via media" of psychiatry. Its policy is to present practical articles based on present knowledge and new advances in neurology, psychiatry, mental hygiene and neurosurgery. In its turn psychiatry gives to the general practitioner "those elements that enable us to treat the whole man", namely, a psychiatric attitude. That is, the awareness of the influence of what people do or say in the sight or earshot of the patient; a social consciousness whereby we try to mobilize all the resources of a community; and an ability to utilize the family for the good of the patient.

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Chemotherapy of Streptococcic Infections

CURTIS F. GARVIN, M.D.

THE treatment of severe streptococcic infections such as meningitis and bacteremia was ineffective until the advent of modern chemotherapy. Now very encouraging therapeutic results can be obtained in appropriate cases. Three compounds, sulfanilamide, neoprontosil and sulfapyridine are used in the treatment of streptococcic infections at present.

SULFANILAMIDE

Sulfanilamide (para-aminobenzene-sulfonamide) is the drug of choice in the treatment of hemolytic streptococcic infections. The substance has been known by a variety of names such as prontosil album, prontosil, colsulanyde, deseptyl, 1162F, stramid, streptocide, sulfamidyl, sulfaphanamide P and sulfanamide P. Sulfanilamide is sold in 0.32 and 0.48 Gm. (5 and 7½ grain) tablets and as a crystalline powder.

Oral Administration—Dosage. Sulfanilamide is usually well tolerated by mouth and this is the most desirable method of administration in the vast majority of instances. The drug can be given by stomach tube in unconscious and uncooperative patients.

The dosage of sulfanilamide varies considerably. A given dosage will not always produce an equally high concentration of the drug in the blood stream in different patients, or even in the same patient at all times. The amount of the drug required in the blood stream usually depends on the severity of the infection, but apparently similar infections do not always respond equally well to the same concentrations in the blood stream. Rules of dosage and blood levels therefore are only general guides. Most cases require individual attention.

In severe infections, a concentration of 10 to 15 mg. of sulfanilamide per 100 cc. of blood is ordinarily required. To establish this concentration quickly, an initial and a maintenance dose are calculated as follows:

The initial dose is one-half of the 24 hour maintenance dose. The 24 hour maintenance dose is calculated according to age and weight. In infants it equals approximately 2 grains per pound of body weight (0.26 Gm. per Kg.), and in children 1½ grains per pound of body weight (0.21 Gm. per Kg.). In adults the maintenance dose is 1 grain per pound of body weight up to 120 pounds (0.14 Gm. per Kg. up to 54.5 Kg.). The drug is given in divided doses every four hours throughout the day and night.

In mild or moderately severe infections, a concentration of 5 to 10 mg. per 100 cc. of blood

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is satisfactory. This level is usually reached by giving one-half to two-thirds the amount recommended for severe infections.

If possible, the concentration of the drug in the blood should be determined six hours after therapy is started. After this the blood level should be checked daily and the dosage of the drug increased or decreased to maintain the proper concentration. When the concentration is more or less constant, the blood level can be checked every three to four days.

Subcutaneous Administration. Parenteral administration is indicated in those cases in which it is desirable to obtain a high concentration of the drug in the blood stream very quickly, and in patients who are vomiting or who, for some reason, have a decreased gastrointestinal absorption. A 1 per cent solution* of sulfanilamide is injected subcutaneously. The initial hypodermoclysis should contain one-half of the calculated first day's dose of sulfanilamide. Subsequent hypodermoclyses should be given at eight hour intervals and should contain one-third of the calculated daily maintenance dose. Parenteral administration is painful and the blood level cannot be maintained as smoothly as in the case of oral administration. Therefore as soon as a patient can take sulfanilamide by mouth parenteral administration is stopped.

Intrathecal and Intravenous Administration. These methods of administration are not recommended.

General Considerations in Treatment with Sulfanilamide. It is imperative that treatment be started as early as possible. If there is clinical evidence that an infection is due to hemolytic streptococci, sulfanilamide is given without awaiting the results of bacteriological investigation.

The use of sulfanilamide does not necessitate a special diet. The fluid intake should be be-

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*This is prepared by dissolving the required amount of powdered sulfanilamide in sterile sixth molar sodium lactate solution, Hartman's solution or physiological saline which has been brought to a boil. The solution is administered at body temperature.

tween 3000 and 3500 cc. per day except in the case of infections of the urinary tract. Most physicians administer soda bicarbonate grain for grain with sulfanilamide in order to combat possible acidosis. Saline cathartics are avoided on the premise that the sulfate radicle may predispose to the development of sulphhemoglobinemia. Otherwise all of the more commonly used drugs may be administered concurrently to patients receiving sulfanilamide.

Auxiliary treatment such as blood transfusions to combat anemia or to supply immune bodies, incision and drainage of localized foci of pus and general supportive measures should not be neglected.

When to Discontinue the Use of Sulfanilamide. Providing serious toxic reactions do not occur, the drug should be continued in full dosage until definite improvement has occurred and the temperature has been approximately normal for two days. At this time the use of the drug frequently can be discontinued. However if infection is still present, the use of the drug is continued in small amounts until the patient is well.

In infections of moderate severity, the dosage may be cut in half after one to two days of normal temperature and the use of the drug may be discontinued as soon as the patient is well.

Negative cultures alone cannot be taken as an indication that the infection is cured. Not infrequently in meningitis, for example, the original culture will show a growth of organisms, and cultures taken 24 to 48 hours after therapy has been started will be negative. Experience has shown, however, that if the use of the drug be stopped at this time a relapse will occur. Therapy must be continued until the patient is well.

NEOPRONTOSIL

Neoprontosil is also known as prontosil soluble, prontosil S, prontosil solution, streptozon and streptozone S. The Council on Pharmacy and Chemistry of the American Medical Association has not accepted neoprontosil for inclusion in "New and Non-Official Remedies".

Neoprontosil is available in 0.3 Gm. (5 grain) tablets, 0.2 Gm. (3 grain) capsules and 2.5 and 5 per cent solutions in ampules.

Neoprontosil forms sulfanilamide in the body by a process of reduction, but the amount is small. The blood sulfanilamide level of patients receiving the recommended dosage of neoprontosil varies between 1 and 4 mg. per 100 cc. of blood.

It is not known whether neoprontosil has any action beyond that which can be attributed to the sulfanilamide formed from it. At times neoprontosil seems to have a therapeutic effect greater than that which could be ascribed to its sulfanilamide content. This however is difficult to prove for it has been pointed out that the

response to a given level of sulfanilamide in the blood may differ considerably in patients who appear to have entirely similar infections. Certain it is that the therapeutic efficacy of neoprontosil has not been proved as extensively or as conclusively as in the case of sulfanilamide.

Accordingly sulfanilamide is to be preferred to neoprontosil in the treatment of streptococcic infections. Although conclusive proof is not at hand, sulfapyridine appears to be virtually as effective against hemolytic streptococci as sulfanilamide and hence would also be preferred to neoprontosil in the treatment of severe infections.

Neoprontosil should be used in those cases in which sulfanilamide or sulfapyridine are not tolerated. In some instances of parenteral administration the availability of neoprontosil in ampules and its ease of administration might cause its use to be more practicable than the administration of sulfanilamide solution by hypodermoclysis or sodium sulfapyridine by vein.

Oral Administration—Dosage. Neoprontosil is well tolerated by mouth and this is the method of administration of choice. The dosage of neoprontosil by mouth is the same as that of sulfanilamide.

Subcutaneous and Intramuscular Administration—Dosage. If oral administration is not effective because of vomiting or lack of absorption or if it is necessary to establish a high concentration of the drug in the blood in a very short time, neoprontosil can be given subcutaneously or intramuscularly, preferably intramuscularly. In calculating the total daily dose of neoprontosil in adults, 2 cc. of the 2.5 per cent solution or 1 cc. of the 5 per cent solution per pound of body weight up to 120 pounds is used. For infants and children the total daily dose is calculated on the basis of 3 cc. of 2.5 per cent solution (or half of this volume of 5 per cent solution) per pound of body weight. The total daily amount is divided into six equal doses and these are administered every four hours. The 5 per cent solution is irritating and should not be used except intramuscularly. Often after a few parenteral doses therapy can be continued by mouth.

Intrathecal and Intravenous Administration. These methods of administration are not recommended.

SULFAPYRIDINE

Sulfapyridine, 2 - (para-aminobenzenesulfonamide)-pyridine, is also known as pyridine sulfanilamide compound, Dagenan and M & B 693.

Sulfapyridine is used in hemolytic streptococcic infections where sulfanilamide is not tolerated. It is indicated in severe infections in which there is a likelihood that the process is due to either a streptococcus or a pneumococcus.

Sulfapyridine ordinarily is not to be preferred to sulfanilamide in the treatment of hemolytic streptococcic infections for several reasons.

(1) It is more toxic than sulfanilamide; (2) Its therapeutic efficiency in streptococcic infections is not as yet as clearly established as that of sulfanilamide; (3) It is absorbed poorly and irregularly in different patients and even in the same patient from time to time. This means that chemical determinations of the blood level must be performed frequently if ineffective concentrations in the blood are to be avoided; (4) It costs more than sulfanilamide.

Sulfapyridine is marketed as 0.25 Gm. (3½ grains) and 0.5 Gm. (7.5 grains) tablets and capsules and as a sodium salt which is available in 2 and 4 Gm. ampules and 5 Gm. phials. Sulfapyridine tablets and capsules are administered by mouth only. The sodium salt is used only intravenously.

Oral Administration—Dosage. This ordinarily is the method of choice. Because of the irregular absorption and frequent vomiting associated with the oral administration of sulfapyridine, it is important to determine the blood level frequently. A blood level of about 5 mg. per 100 cc. of blood is usually sufficient. This level usually can be attained by the administration of an initial dose of 2 Gm. (30 grains) and a maintenance dose of 1 Gm. (15 grains) every four hours. It is to be emphasized, however, that such dosage may produce a blood level varying from 1 to more than 10 mg. per 100 cc. and therefore the blood level must be determined frequently and the dosage of the drug increased or decreased as necessary. In infections which are very severe or which are not responding properly, the blood level should be from 8 to 15 mg. per 100 cc. of blood. This usually can be obtained by an initial dose of 4 Gm. (60 grains) and a maintenance dose of 2 Gm. (30 grains) every four hours, but as has been indicated, the blood level must be checked frequently. As improvement occurs the dosage of the drug is decreased. The use of the drug is continued in small amounts until the patient is better. Children up to ten years receive one-half and infants up to one year receive one-fourth the adult dose.

Intravenous Administration. The intravenous route is used where it is impossible to give sulfapyridine by mouth, where a proper blood level cannot be maintained by oral administration, and where prompt action of the drug is imperative. In general the potential dangers which accompany intravenous medications and especially those which may follow injections of strong alkaline solutions of weak acids must be kept in mind. The intravenous use of sodium sulfapyridine monohydrate should be limited to conditions in which oral administration is impossible or does not suffice for successful therapy.

RESULTS IN INFECTIONS CAUSED BY HEMOLYTIC STREPTOCOCCI

Adenitis. Non-suppurative lymph adenitis due to hemolytic streptococci frequently is completely

amenable to moderate doses of sulfanilamide. A typical case* is as follows:

L.B., a white boy aged 3, made a good recovery from an attack of scarlet fever except for persistent nasal discharge. On the 28th day following the onset of the scarlet fever the temperature rose to 38.5 C. (101 F.) and the next day reached 40.5 C. (105 F.). The cervical lymph nodes showed moderate bilateral enlargement. Physical examination otherwise was negative. Sulfanilamide Gm. 2 (grains 30) was administered as an initial dose, then Gm. 0.6 (grains 10) every four hours for twelve doses. The temperature reached normal in 24 hours—after four days the lymph nodes were not palpable.

Sulfanilamide has little effect on suppurative adenitis, the proper treatment of which is surgical as illustrated by the following case:

O.T., a white male aged 42, received sulfanilamide for erysipelas of the scalp and neck. While the patient was receiving 8 Gm. (120 grains) of sulfanilamide per day, the cervical lymph nodes formed a large abscess which on the sixth hospital day was incised with the release of a considerable amount of pus. The patient then made a rapid recovery.

Bacteremia. Bacteremia resulting from hemolytic streptococcic infections is always of very grave significance. Keefer¹ states that the mortality rate in 246 cases of streptococcic infection accompanied by bacteremia not treated by sulfanilamide was 72 per cent. Ten of fifteen patients subsequently treated with sulfanilamide survived. The local focus regressed, the blood gradually became free of organisms, the leukocyte count frequently increased and the temperature returned to normal. In some cases a local focus of suppuration required drainage. Complicating pneumococcal infection, multiple septic arthritis, peritonitis, or a local focus that could not be drained surgically, were found in the fatal cases. The dosage recommended by Keefer is essentially the same as that presented here.

Erysipelas. The experience with sulfanilamide in the treatment of erysipelas at Cleveland City Hospital has been reported by Toomey.² He found that the mortality rate in 1313 untreated control patients was 15.5 per cent while that of 520 patients treated with erysipelas antitoxin was 13 per cent. The mortality rate in 74 patients treated with sulfanilamide was 4 per cent.

Treatment is more effective if started early. The dosage employed at the Cleveland City Hospital for the first 48 hours is that recommended for severe infections. Then the dosage is decreased to moderate amounts. Usually the rash stops spreading and starts to fade after 12 to 24 hours. Ordinarily the drug can be discontinued after the temperature has been normal two to three days.

Meningitis. The mortality from hemolytic

*All the case reports here recorded are from Cleveland City Hospital.

streptococcic meningitis prior to the use of sulfanilamide was 95 per cent or more. Since the introduction of sulfanilamide numerous recoveries have been reported. Toomey and Kimball³ summarized 102 cases of streptococcic meningitis treated with sulfanilamide and/or neoprontosil. Recovery occurred in 81 cases (79.4 per cent). Three of the reported deaths were caused by non-hemolytic, non-hemolytic and hemolytic, and an unknown type of streptococcus, respectively. The hemolytic streptococcus was the sole causative factor in 98 cases; 18 of these or 18 per cent were fatal.

Numerous investigators have thought that chemotherapy in hemolytic streptococcic meningitis should be intraspinal and subcutaneous as well as oral. Toomey and Kimball found that oral administration produced an adequate concentration of the drug in the spinal fluid. They believed that their experience at Cleveland City Hospital of two deaths in 12 cases compared favorably with the results of treatment by more involved methods. Their practice was, (1) to give a massive initial dose of the drug followed by smaller doses precisely as outlined under Dosage; (2) to have the patient operated on as soon as possible for the removal of the focus of infection; and (3) to avoid spinal drainage unless the spinal fluid pressure was extremely high.

Since the report of Toomey and Kimball, six additional cases of hemolytic streptococcic meningitis have been treated with sulfanilamide at Cleveland City Hospital without a death.

Although the experience with sulfapyridine in the treatment of hemolytic streptococcic meningitis is still limited, the efficacy of the drug is illustrated by the following case:

H.V., a white child aged 9, had had a draining otitis media for 12 days. For two days prior to admission he suffered with headaches, vomiting, fever and a stiff neck.

Physical examination on admission revealed an acutely ill child. The temperature was 40 C. (104 F.) and the pulse 130 beats per minute. The left ear drum showed a small perforation through which pus oozed. The neck was stiff and the Kernig and Brudzinsky signs were positive.

Myringotomy on the left released a large amount of purulent material. A lumbar puncture showed the spinal fluid to be cloudy and to contain 6370 cells per cubic millimeter, 90 per cent of which were polymorphonuclear leukocytes. A smear revealed Gram positive cocci. A culture of the spinal fluid was taken and subsequently yielded hemolytic streptococci. An initial dose of 4 Gm. (60 grains) of sulfapyridine was given and thereafter 2 Gm. (30 grains) were administered every four hours.

The following day the patient was improved and the temperature was declining. The spinal fluid contained 2100 cells per cubic millimeter. The blood level of the sulfapyridine was 4.8 mg. per 100 cc.

The next day the temperature was normal and the patient felt well. The following day the dosage of sulfapyridine was decreased, 1 Gm.

(15 grains) being given every four hours for an additional two days. The patient's recovery was complete.

Otitis Media and Mastoiditis. The extensive literature on this and related subjects has been reviewed by Schenck.⁴ He thinks that it is not yet possible to determine the value of sulfanilamide in the treatment of otitis media. There is no question, however, that on occasions chemotherapy seems very efficacious as illustrated by the following case:

F.W., a white boy aged 2, entered the hospital because of scarlet fever and acute purulent hemolytic streptococcic otitis media. Myringotomy was done on the left and pus was obtained. On the third hospital day myringotomy was performed on the right with release of pus. Free drainage ensued but the temperature rose to 39.5 C. (103 F.) daily. On the sixth hospital day the patient received 1.3 Gm. (20 grains) of sulfanilamide and then 0.6 Gm. (10 grains) every four hours for ten doses. The temperature returned to normal by crisis and the discharge disappeared within 48 hours.

In instances of mixed infections, the results have not been so good. Whether treatment with sulfanilamide really prevents extension of the infection from the middle ear to the mastoid cells or whether it merely leads to a peculiar masked form of disease is not settled.

Schenck's opinion concerning the efficacy of chemotherapy in mastoiditis is conservative. He points out that the large number of reports of cases of mastoiditis in which a favorable result has followed therapy with sulfanilamide is somewhat misleading, for many cases of mastoiditis subsided without operation before sulfanilamide was available. He concludes that in most instances operation cannot be superseded by the administration of the drug.

Pharyngitis and Tonsillitis. It is difficult to determine the efficacy of sulfanilamide in hemolytic streptococcic pharyngitis and tonsillitis, for even without chemotherapy, these diseases are usually self-limited and of short duration. Although the temperature may fall to normal in a short time and the patient may feel better, it is not proved that the use of sulfanilamide was responsible. In one type of hemolytic streptococcic pharyngitis, namely that of scarlet fever, the course does not appear to be modified by the use of sulfanilamide. It also is to be emphasized that most sore throats are not caused by hemolytic streptococci, but by such organisms as staphylococci, non-hemolytic streptococci, streptococcus viridans, micrococcus catarrhalis and pneumococci which are not ordinarily susceptible to sulfanilamide. Hence the indiscriminate use of sulfanilamide in pharyngitis and tonsillitis is to be condemned. It seems reasonable to recommend that sulfanilamide be used in pharyngitis and tonsillitis only if the infection is severe and is one that can be expected to respond to chemo-

therapy. The drug should be administered in moderate doses.

Post Abortal and Puerperal Sepsis. The use of sulfanilamide in the treatment of these infections has been established on a sound clinical basis. At Queen Charlotte's Hospital in London the mortality rate in 300 cases of hemolytic streptococcal puerperal infections treated with sulfanilamide, neoprontosil or the original prontosil was 5.3 per cent as compared with a mortality rate of 22.6 per cent in 500 cases not so treated.⁵ If the infection is confined to the uterus, its spread is prevented, bacteremia is avoided and the mortality is reduced. The cases with bacteremia are more serious, but the results are still impressive since the mortality has been reduced from about 70 to 30 per cent.

Scarlet Fever. Since scarlet fever is caused by hemolytic streptococci, it might be assumed that sulfanilamide would be of great value in the treatment of this disease. However it is the belief of most investigators that sulfanilamide does not reduce the duration of the fever or the toxicity as manifested by the intensity of the eruption. Whether treatment with sulfanilamide reduces the incidence of complications is debatable.

The practice at Cleveland City Hospital is to give scarlet fever antitoxin for the toxicity in the first stages of the disease and sulfanilamide for complications.

Infections of the Urinary Tract. Sulfanilamide is very effective in the treatment of infections of the urinary tract caused by hemolytic streptococci and a number of other organisms. Chemotherapy should not be started ordinarily until more conservative methods of treatment fail. In addition, sulfanilamide should not be used until the patient's renal function has been studied, the infecting organisms identified, and the possibility of anatomical and pathological abnormalities of the urinary tract investigated.

Successful treatment depends on an effective concentration of sulfanilamide (nonacetylated) in the urine. Hemolytic streptococcal infections usually require a concentration of from 250 to 300 mg. of sulfanilamide per 100 cc. of urine. This may not be possible in patients with impaired renal function. Incidentally, such patients must be observed particularly closely lest the drug accumulate in undue amounts in the blood and tissues. Effective concentrations of the drug in the urine are also prevented by the forcing of fluids. Hence patients receiving sulfanilamide as a urinary antiseptic are instructed to drink water sparingly (1200 to 1500 cc. per 24 hours). It is to be emphasized that protected foci of infection (residual urine, abscesses, etc.) must receive appropriate treatment in order to prevent failures in chemotherapy.

Miscellaneous Conditions. There is not sufficient evidence at hand from which to draw con-

clusions concerning the efficacy of sulfanilamide and its allied compounds in a number of other infections due to hemolytic streptococci. The drug is indicated and has apparently effected cures in patients with hemolytic streptococcal suppurative arthritis, various types of cellulitis, empyema, Ludwig's angina, osteomyelitis, peritonitis, pleurisy, pneumonia and sinusitis. At Cleveland City Hospital one case of suppurative arthritis and one case of purulent empyema due to hemolytic streptococci recovered following aspiration and treatment with sulfanilamide. Nine cases of hemolytic streptococcal pneumonia have been treated with sulfapyridine without a death.

RESULTS IN INFECTIONS CAUSED BY NON-HEMOLYTIC STREPTOCOCCI

The results of the treatment of non-hemolytic streptococcal infections with sulfanilamide and allied compounds have been poor although in a few cases recoveries have followed the use of these drugs. For example, at Cleveland City Hospital two cases of meningitis and two cases of septicemia caused by non-hemolytic streptococci have recovered following therapy with sulfanilamide. In subacute bacterial endocarditis due to streptococcus viridans there have been isolated observations elsewhere of recoveries or remissions of long duration which seem to be due to the use of the drug. At Cleveland City Hospital two cases of pneumonia and bacteremia due to a streptococcus viridans recovered following therapy with sulfapyridine. Such experiences cause one to feel that patients with non-hemolytic streptococcal infections associated with a grave prognosis should receive a trial with sulfanilamide or its allied compounds even though there is slight chance that the use of the drug will be effective.

SUMMARY

Sulfanilamide administered orally is the treatment of choice in infections due to hemolytic streptococci. The drug is effective in adenitis, bacteremia, erysipelas, meningitis, postabortal and puerperal sepsis and a variety of other diseases due to hemolytic streptococci. Only occasionally is it effective against infections caused by streptococci of the non-hemolytic and viridans type.

Neoprontosil forms sulfanilamide in the body by a process of reduction, but the amount is small. It is not as potent therapeutically as is sulfanilamide.

Sulfapyridine is probably only slightly less effective in infections due to hemolytic streptococci than is sulfanilamide, but until more is known in regard to this point, it should not be used in conditions for which sulfanilamide is known to be effective.

Bibliography, omitted because of lack of space, will be published in reprints.

Chemotherapy of Puerperal Sepsis

ABE CLINE, M.D.

SINCE Semmelweis, and in this country Holmes, demonstrated the contagious nature of puerperal sepsis, progress in its control has followed the progress in the control of other bacterial infections. We now know that puerperal infections may be exogenous or endogenous; that is due to contamination by germs introduced during or following delivery, or to self infection by latent organisms following a reduction in the defensive mechanism within the reproductive tract. A number of organisms have been recognized as principal offenders, most commonly hemolytic streptococcus, anaerobic streptococcus of Schottmuller, colon bacillus, pneumococcus, and staphylococcus.

The years have witnessed a procession of anti-septic drugs used in the prophylaxis and treatment of puerperal infection, too numerous to list here. Within recent memory, we recall the intravenous use of silver colloids, later organic mercurials, and then dyes, especially of the acridine group. Chemotherapy, incidentally, owes a lot to the dye industry. Mayes¹ developed a technic of using mercurochrome during labor, alcohol-acetone solution sprayed on the perineum and 4 per cent aqueous instilled within the vagina, as a prophylactic. He claimed a decrease in the incidence of infections and his method has been widely adopted. Tritsch² obtained similar results with amphyl, a newer mercurial, with less expense. With the advent of sulfanilamide in 1935, all other methods in the treatment of puerperal (and for that matter most other) infections have been relegated to the dust heap of obsolescence. Domagk received the Nobel prize in medicine for demonstrating the antistreptococcic action of certain azo dyes, and with other workers, synthesized the original prontosil. His work was the culmination of researches by chemists in the German dye industry, which gave us scarlet red and other medicinal dyes. Later, the azo part of the chemical was discovered to be not essential, and the effective component sulfanilamide was born. Since then a large family of related compounds has been synthesized, many demonstrating a superiority in the treatment of certain diseases. Sulfapyridine is probably the best known at present.

Sulfanilamide (as a group) is used orally, subcutaneously, intravenously, intrathecally and locally, the latter chiefly in dentistry. It is absorbed rapidly from the gastro-intestinal tract,

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penetrates all tissues and fluids of the body, and is excreted almost entirely by the kidneys. It passes freely from the maternal to the fetal circulation and is excreted in appreciable quantities in the breast milk.

The action of the drug is bacteriostatic, through a mechanism not yet understood, and its effectiveness has been demonstrated most markedly against the beta-hemolytic streptococcus.

It is a highly toxic drug, causing frequent minor symptoms, such as nausea and vomiting, fever, cyanosis and rash, etc.; and occasionally serious complications, such as peripheral and optic neuritis, psychosis, anemia and blood dyscrasias. Considering the inclusion of the benzene ring in its formula, the toxicity of sulfanilamide towards the hematopoietic system is not surprising. As examples, from a list of 77 articles on toxicity in one volume of *Index Medicus*, Kracke³ reported 11 cases of neutropenia with 9 deaths; Harvey and Janeway⁴ 3 cases of hemolytic anemia.

The dramatically curative effect of sulfanilamide has been demonstrated on cases of otitis media, erysipelas, meningitis, pneumonia, peritonitis, septicemia, scarlet fever, Ludwig's angina, undulant fever, trachoma, gonococcus infections and puerperal sepsis. It has proved ineffective in tuberculosis, trichinosis, pertussis, poliomyelitis and the virus diseases.

In our particular field of interest, we are enthusiastic over the results of Colebrook⁵ and his collaborators, who reported from London a reduction of mortality in 199 puerperal infections to 5.5 per cent, compared with a rate of 22.3 per cent for the previous five years. D. E. Brown experienced a reduction in mortality from streptococcic puerperal infections from 23.5 per cent to 6.6 per cent by the use of prontosil. A number of clinics have been experimenting with the drug as a prophylactic, giving it routinely during labor and for several days following. Opinions differ as to its merit.

When sulfanilamide is used, several precau-

¹Presented before the Dayton Obstetrical Society, January 24, 1940.

tionary measures must be adhered to. First, it must be given in effective dosage and at intervals frequent enough to maintain the required blood level; second, the patient must be under close observation, preferably in a hospital; third, the blood picture and hemoglobin level must be frequently checked; and fourth, other drugs except simple sedatives and analgesics should not be given in conjunction.

Bigler and Haralambie⁶ in a comprehensive survey of the entire problem of sulfanilamide therapy (from which incidentally I gleaned most of the above information) advise respect for the dangers of the drug. They conclude, however, that the advantages of its use, when indicated, far outweigh any disadvantages.

I regret that, at least as far as puerperal infections are concerned, I cannot concur in their conclusion. This is in fact a minority report. Our profession has fallen for sulfanilamide, hook, line, and sinker. Over-enthusiasm, it must be remembered, can be as great a fault as neglect. A drug as dangerous as sulfanilamide merits, in my opinion, a more cautious approach.

At a meeting last year of our County Medical Society devoted to the discussion of sulfanilamide, one surgeon reported two deaths in treating simple cellulitis. Magnesium sulphate applications were blamed. I recall a death in the Miami Valley Hospital a few years ago in a young woman treated for gonorrhea. We had a death in an infant at the Good Samaritan Hospital last year, treated for ophthalmia neonatorum. I heard a verbal report some time ago of three deaths at the Cook County Hospital, ascribed to sulfanilamide used in puerperal sepsis. None of these appear in the literature alongside the glowing reports of cures.

Considering Colebrook's and Brown's splendid reduction in mortality rate to 5.5 per cent and 6.6 per cent, let me compare the report of Stander from Johns Hopkins where they lost 5 out of 90 cases of hemolytic streptococcal puerperal septicemia for the five year period ending October 31, 1929⁷ and only 2 out of 113 cases of all types of puerperal streptococcal infections in 1926 and 1927, all before sulfanilamide was heard of.

In my own cases of puerperal infection and infected abortion, I have had one death, that a postabortal peritonitis 17 years ago. Since the advent of sulfanilamide I have had two very severe cases of puerperal septicemia, one complicated by lung emboli and thrombophlebitis. Both made complete recoveries and I used no sulfanilamide. My treatment includes the accepted supportive measures, opiates and sedatives as indicated, Fowlers position, no manipulations or douches in the acute stage, ergonovine to facilitate drainage of uterine contents and to help limit the spread of uterine contamination; iron, sodium salicylate and repeated blood trans-

fusions in the severe cases. Salicylates not only act as antipyretics but also inhibit the activities of the streptococci and tend to neutralize some of their toxins.⁸ After the subsidence of the initial febrile stage, heat to the pelvis in the form of prolonged hot douches, Elliot and diathermy treatments help resolve the infective exudates, and protein injections activate the defensive mechanisms of the body.

To sum up, chemotherapy of puerperal sepsis has received a tremendous impetus from the introduction of sulfanilamide and related compounds to our therapeutic armamentarium. In my own opinion, sulfanilamide is a dangerous drug, and its use should be reserved for serious cases in which hemolytic streptococci are the demonstrable etiologic organisms. This therapy should be undertaken with the proper understanding of dosage requirements and with proper safeguards against toxic manifestations. Lastly, one should remember and practice diligently the established conservative therapeutic techniques, less dramatic in effect than these new chemicals, but also less dangerous.

Fidelity Medical Bldg.

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Substantial progress has been reported in the development of minimal services for venereal disease control since the passage of the Venereal Disease Control Act in 1938. Approximately 103,000 patients were discharged from the clinics as cured or with syphilis arrested in 1939, as compared with 78,000 in 1938, and about 60 per cent more persons were brought under treatment for the first time in 1939 than in 1938.

Under the Venereal Disease Control Act of May 24, 1938, \$3,000,000 in Federal funds was authorized and appropriated for the year 1938-39. Of this total \$2,400,000 was allotted to state health departments. This sum was supplemented by \$4,300,000 in state and local funds. Five million dollars was authorized and appropriated for the present fiscal year. Seven million dollars has been authorized for the fiscal year beginning July 1, 1940.

Prenatal Care in General Practice

DEAN MACDONALD, M.D., F.A.C.S.

DELEE believes that a conservative estimate of the number of mothers dying in childbirth each year in the United States is over 15,000, and that this number seems to be continually growing due to the improvement in statistical reports. Blair Bell thinks that the number who die months or years following, and as a direct result of labor, is even greater than those dying at the time of birth. Approximately 250 babies are born dead every day. Some of these maternal and fetal deaths are the direct result of general diseases of the mothers and are therefore preventable.

The care of the mother before delivery, and indirectly the care of the baby before birth, are old subjects for debate. There are, however, still many who do not appreciate the importance of this care and its relation to the above figures. Such deaths have a far-reaching effect. A logical question is: what per cent of the morbidity and the mortality is the fault of the doctor; what per cent is the fault of the patient; what per cent is unavoidable? It is generally agreed that some of the mortality and much of the morbidity can be prevented by adequate prenatal care. Many prospective mothers do not realize that they walk through the "Valley of the Shadow of Death" during delivery. In this paper we are concerned only with the doctor's care of the mother during a normal pregnancy. The prenatal care may determine the future health of the mother and sometimes of the baby. A dead mother is no less serious than one who carries the scars of a pregnancy throughout her life.

A prospective mother who will not follow her physician's advice and who is not entirely co-operative is often the person who will find fault. But much of this blame can be avoided by careful prenatal care. If a patient will not abide by the directions of her physician, then that physician has a perfect right to request that patient to go elsewhere.

ROUTINE MEDICAL CARE

Proper care does not take much time. Ten minutes is sufficient to do a blood pressure, a urinalysis, a haemoglobin estimation and to take the weight. This should be done once a week. To those who argue that this is too much time to spend and that it is unnecessary, there is this answer. Prevention is the corner stone on which the future lowering of morbidity and mortality rates will be founded. Prevention is the keynote of all successful practice in any branch of medicine. In obstetrics, there can often be pre-

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vented badly conducted second stages due to a contracted pelvis, irreparable kidney damage, dental decay, progress of anemia, the development of varicose veins, eclampsia which might be fatal, etc.

The urine and blood pressure, if abnormal, must be interpreted as possible serious complications; the blood pressure particularly. Both these examinations can be the means of forewarning the doctor of serious and even fatal complications. When they are abnormal they indicate a potential death and if the examination is made only once a month, or once every five or six weeks, disease cannot logically be found as early as it might be when more care and interest is shown. Prenatal care is another name for prevention and it can not be practiced thoroughly by four or five visits during a five or six month period. Weekly visits might be called "over-cautiousness", but in moderation this is one of the good "bad habits". Two cases will serve to prove this point.

Case I—Mrs. W. C., age 33, Para ii, gravida iii. Sixth month. Oct. 13 blood pressure 90-50. At the regular visit on Oct. 20, 1937, the pressure was 95-58. She was given strict orders and these were emphasized the next day when her pressure was 106-60. (Oct. 21). Oct. 22 it was 110-66; Headaches were absent and the urine negative. She had no complaints and would not have sought advice. However, her pressure continued to rise and on Oct. 23 and 24 it was 110-70 and 130-70. Her fundi were negative, but she now complained of slight headache and nausea, and a urinalysis revealed albumin. Under careful observation and a strict regime she quickly recovered. Recovery might not have been as complete if treatment had been started after symptoms became severe enough to call a physician.

Case II—Mrs. A. S., age 21. Gravida i. Seventh month. March 5, 1938, blood pressure was 100-58. Her range had been 95-96 to 100-60. On March 12, routine visit showed 110-74. Otherwise well. March 13, 112-70; March 14, 115-78. During this time she was under constant supervision and treatment. On March 16 she was allowed to sit up by the radio. She became dizzy and went back to bed. Her pressure was 120-80. Because of this rise and her headache she was sent to the hospital for more careful observa-

tion, where during the night she had two attacks of "twitching" and her pressure rose to 140-90. Treatment, including a spinal puncture, was instituted at once; improvement was immediate and recovery complete for mother and baby. This case, as the former, might not have done as well if she had been seen only once a month. Neither could have had better recoveries and both might have been worse. Both advanced rather quickly and no doubt would have called a doctor sooner or later. But in obstetrics you must be "sooner"; if you are "later" you are too late.

During the non-pregnant period the blood pressure can change within comparatively wide normal limits, but not so in pregnancy. Any rise above the high of the first three readings must be considered as abnormal and treated with great respect as a potential fatality.

The kidneys are the vulnerable spot of the body during a normal pregnancy; particularly is this so if there has been previous disease. Such a history must be searched for by inquiry. Routine examination of the urine is made for albumin, sugar and specific gravity, and it is done once a week. Also once a week the patient should measure her urinary output, which must not be less than 1500 cc. a day.

The complaint of tiredness and fatigue, and the saying "I've never felt well since my baby was born", are not uncommon. The above complaints are not natural, because nature does not make many mistakes, or at any rate not as many as medical men—so it must sometimes be our fault when a mother so complains. The hemoglobin content may fall fast, even if it is normal at the beginning of pregnancy, and this is not always so. The two cases mentioned above had hemoglobin estimations of 67 per cent and 56 per cent when first seen, and the average of a small series of 45 cases was 68.7 per cent when first seen. If these figures are representative of private cases how much worse is it in clinic practice? A mother can not be well following a pregnancy that leaves her with a hemoglobin of 50-55 per cent or lower. She is also more susceptible to infections both before, during and after delivery. It may not be possible to keep the blood normal in every case, but it can be prevented from falling, or the reason for the fall can be searched for. These four items: the blood pressure, examination of the urine and hemoglobin, and the weight, are watched at the routine visits, but at monthly intervals the red blood count and a smear should be done.

The foundation for the successful termination of a pregnancy is the same as it is for any other event, whether it be a hockey play-off, an afternoon tea, a serious operation, or a bridge game. It is preparation. A woman has no more right to enter the labor-room without "getting into condition" than an athlete has to enter a championship contest without being in condition. The point is this: the better the preparation for any

job, the better that particular job is done. If this is true of our daily routine, how much more does it apply to a situation where one life, and sometimes two, are at stake?

GENERAL HEALTH

The general health of any person will be improved if the diet, fresh air, sunshine and rest are properly proportioned. This is particularly true of pregnant women. Exercises and regular habits of eating, sleeping and going to stool are imperative. There must be definite times for defecation. Usually mild laxatives or enemas are not needed and should not be started if they can be avoided. Bulk of vegetables, fruits, fluids, habit, exercise and relaxation are the essentials for normal bowel mechanics. Prunes, figs or dates are good for breakfast. Nervous people have the greatest difficulty in this respect, and mild sedatives will often be very beneficial, but can not be used indiscriminately.

Walking with deep breathing must be encouraged, and half an hour's rest in the morning and afternoon can become such a pleasure that it will be looked forward to. Leg-raising exercises lying on the back, in moderation, help to keep or increase the tone of the abdominal muscles, and the patient is more than thankful when she finds that she still has that "school-girl figure" after delivery. Healthy and strong abdominal muscles are the best girdle a girl can wear—and a great prevention against constipation. Legs should be massaged and exercised daily and varicose veins watched for carefully. Standing must be avoided as much as possible in the later months, particularly if the circulation and musculature are not good. Pressure in the pelvis, or congestion in the legs will often be relieved if the patient sleeps with the foot of the bed raised twelve inches. It will also improve the circulation. Swimming and golfing in moderation are allowed in early pregnancy. A tepid sponge or shower bath after exercise is a good method of toning up the body. Gentle massage of the arms, legs and chest is conducive to sleep. Exercise must not be carried to fatigue. Common sense is the guide.

Many women do not eat properly during pregnancy. Meals should be moderate and balanced with milk, vegetables, fish, rare meats and sufficient fresh fruits. If milk is disliked, some substitute, such as phytine can be used. This contains calcium and phosphorous, and has an excellent sedative effect. Such a preparation is preferable to barbitol or bromides because it is a natural sedative. The idea that a mother must feed two people is wrong. It is sometimes very difficult to keep the weight down, and over-eating increases this difficulty. The weight must be watched carefully. If salt is removed from the table one week each month it is a distinct advantage. A gain of three pounds a week is the

average maximal normal. 12-15000 cc. (five to six glasses) of water should be drunk each day.

The breasts rarely receive enough attention until after delivery when bleeding, pain or infection remind the mother and doctor that they have been present throughout the pregnancy. These are complications which can be prevented by preparing the nipple for the baby. The care of the breasts includes stimulation of the circulation by moving the mammae firmly against the chest wall with the flat of the hand, and by massaging the nipples with sterile vaseline and clean turkish toweling to harden them. The former can be started early and the latter about the eighth month. Small nipples, if they are not too much retracted, can be enlarged by daily traction with the fingers, and soft fissured nipples need to be treated with lanoline or cocoa-butter before the hardening process is started. The breasts are better held up and supported. They should not be tied down and hidden under some garment.

Proper clothing consists of loose garments with no circular restriction on the legs. Shoes should be bought with care, and poor feet or fallen arches must be corrected. Heels are better if they are not too high. High heels produce backache as pregnancy advances.

Measurements must be known, the fetal heart watched, and the presentation noted. This is done either before, during or after a thorough physical examination which is absolutely imperative. This will disclose such conditions as tuberculosis, syphilis, diabetes, chronic nephritis, rheumatic heart, etc.

Coitus is safest during the fourth, fifth and sixth months; it is unsafe earlier and dangerous later.

The patient must report headaches, nausea, vomiting, bleeding, increased or decreased urine, cramps or any abnormal occurrences.

Last but not least is this: the future mother must be happy and contented. Mental rest is just as essential as physical rest. She must have no apprehension about the delivery. Complete satisfaction and confidence is an absolute prerequisite for a happy ending.

1939-1940: The Vitamin Decade

What medical historians will label the thirties no one can tell, but there is a good possibility that this period will go down in history as the "vitamin decade." Certainly no previous ten years in the history of mankind has seen such advances in the knowledge of vitamins. Three columns with approximately 100 references covering the field of vitamins in Vol. 25 of the *Quarterly Cumulative Index* (Jan.-June, 1929). The corresponding period for 1939 required 26 columns of over 900 titles.

The establishment of the formula and the synthesis of Vitamin A are recent triumphs of chem-

istry. The eleven vitamins now available in synthetic form were displayed at the national meeting of the American Chemical Society. These are vitamins A, B¹, B², B⁶, C, D², E, K, riboflavin, nicotinic acid and ergosterol.

In the last decade vitamin B has become the Vitamin B complex and the elements of that complex are being defined. The Committee on Vitamin Nomenclature has advised abolishing the term Vitamin B, unqualified; recommending Vitamin B₁ for the anti-polyneuritic factor, riboflavin in place of B₂ or G, and pellagra preventative factor or P-P factor. Nicotinic acid seems to fill the bill for the anti pellagra factor.

Albert Szent-Gyorgi's name will always be associated with the isolation of Vitamin C. For this work he was awarded the Nobel Prize in Medicine and Physiology in 1937, the first such award for vitamin research. The advances in chemical knowledge led to great strides in determining new sources of Vitamin C. The therapeutic use of Vitamin C in hemorrhagic and purpuric states is based upon its specific action in the hemorrhages of scurvy. However hemorrhagic diseases of non-scorbutic origin have not responded to the use of ascorbic acid.

Several forms of vitamin D have been distinguished in recent years. The two forms of interest in medicine are activated ergosterol and activated dehydro-cholesterol. The cholesterol form is found in animal skin. Vitamin E is a fat soluble factor whose presence in the diet is necessary for fertility in rats. It seems to have a definite effect in increasing fertility among cows. There is no proof at present that Vitamin E affects fecundity in human beings.

Vitamin K is also a fat soluble principle of importance in formation of blood clot. Vitamin K seems to be essential for the production of prothrombin. There is evidence to show that hemorrhagic states common in obstructive jaundice can be controlled by the proper administration of Vitamin K.

There is no doubt that large underprivileged groups within the population suffer from vitamin deficiencies. The proper treatment of these people is provision for adequate diets rather than wholesale exhibition of vitamin mixtures. The Council on Pharmacy and Chemistry of the American Medical Association does not recognize preparations including a variety of vitamins excepting combinations of A and D. An excellent summary of recent knowledge on vitamins is contained in the symposium on the subject published in book form by the American Medical Association.

Vitamin research bloomed full flower in the thirties. The exaggerated claims, the fads will wither away. But the wealth of knowledge gained of new sources, new uses, and even of new elements in the vitamin series, should serve mankind for all time to come.—Editorial, The Journal Lancet, Vol. LX, No. 2, February, 1940.

Treatment of Giardiasis

AUGUSTUS A. HALL, M.D., F.A.C.P.

TO Morrison and Swalm¹ we are indebted for the first practical work in America with the new and effective parasiticide—atabrine,* brought to the attention of the world by Galli-Valerio² of Lausanne, Switzerland. Galli-Valerio was well acquainted with the energetic action of the acridine preparation, atabrine, on the malarial parasites and he decided to try it in the treatment of giardiasis. As we reported last June,³ he claimed it to be highly efficient.

Swalm and Morrison have reviewed the various parasiticides used in the past. The percentages of cure have been varied, but in no one of them has the percentage of cure been as great as in those cases treated with atabrine. In the few cases we have treated there have been no relapses. In the 10 cases Swalm and Morrison reported, there was a 90 per cent cure. As time goes on and more data is available, perhaps a true index of cure with atabrine can be determined.

INCIDENCE

The incidence of giardiasis has varied with the experience of different investigators and clinicians. A large portion of the data has been determined by stool examinations. Lately more use has been made of diagnostic biliary drainage⁴ and data resulting from this method should prove more reliable since the duodenum is the natural habitat of giardia. In our last 100 patients who were subjected to biliary drainage for diagnostic reasons, four were found to be infested with giardia. This is an incidence of 4 per cent.

Experience with the administration of atabrine to human beings dates from 1931 when it was discovered by Mauss and Mietzsch of Germany. It was found to be a highly efficient parasiticide against malaria. Since then it has been exhaustively tried in all parts of the malarial world. At this time it seems sensible to turn to this experience to learn of the reaction to this chemical by patients when ingested or injected.

Hoops,⁵ McNabb,⁶ and Hill⁷ report no toxic reactions from the use of atabrine while treating malaria. Johnson⁸ states that atabrine itself is relatively non-toxic but it has a cumulative action and is excreted slowly. As a result, toxic symptoms may not appear until some time after treatment has ended. In Europeans these symptoms

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were headache and abdominal pain. The abdominal symptoms very rapidly responded to treatment by a bland diet and alkalis.

Craig⁹ says that symptoms, such as abdominal colic, nausea or vomiting, headache, and other nervous symptoms, as mania, delirium, melancholia and evanescent mental confusion have occurred after the administration of atabrine but have almost invariably occurred when the drug has been administered in larger dosage than recommended or to individuals having a history of psychoses or nervous disorders. This would hardly apply to the dosage required in the treatment of giardiasis.

Although no clinician would mistake the yellow discoloration of the skin for jaundice that occurs in some patients taking atabrine, it should be mentioned. Lajos¹⁰ and Manson-Barr¹¹ cite experience with this reaction. Manson's case did not turn yellow until the eleventh day and the discoloration disappeared by the nineteenth day without any treatment. Lajos explained in 1934 that the coloration of the skin usually appears on the second or third day of the treatment and is due to the deposition of the staining factor of atabrine in the tissues and not to a disturbance of liver function. In all of his cases the bilirubin content of the serum was normal and bile pigment was absent from the urine.

Fernando¹² warns against the use of atabrine mussonate by injection and cites a death presumably following the injection of this material. He states that the kidneys failed to excrete the atabrine. He further says that it should not be given in cases of advanced hook-worm disease or where there is disturbance of renal function.

COMMENT

The accompanying chart gives the data on the four cases mentioned. Only two of them were treated with atabrine. Two of the four patients had diarrhea and this symptom disappeared after treatment. Two of the four patients had a definite eosinophilia. The other two were within

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*Atabrine—chemical formula, dihydrochloride of methoxy-chlordiethyl aminopentyl amino-acridine, manufactured by Winthrop Chemical Company, is marketed in tablet form, 5 grains to the tablet. It has not been included in New and Non-Official Remedies.

normal limits. Eosinophilia from this small series does not seem to be a reliable clinical sign. Various vague gastro-intestinal symptoms were present in all four cases. There were no symptoms which could be described as typical of the disease. Three of the patients were given neocarsphenamine intravenously in small doses. Relapse occurred in one of these. This case was then placed on atabrine and has had no relapse for six months. One of the cases was placed on atabrine on a very low dosage. This was not enough atabrine to destroy all of the parasites for one living giardia was seen in the gall-bladder fraction of bile. He was then placed on the usual dosage and has not had a relapse for three months. Two days after this patient started his first course of atabrine he had the onset of severe headache, marked insomnia,

may be a seat of reinfection of the gastro-intestinal tract. Therefore examination of the stool alone is not final proof that all giardia are gone. A biliary drainage performed according to the Lyon-Meltzer technic should be done to attempt to guarantee that there are no giardia in the biliary tract nor duodenum. In two of the four patients the giardia were not found until fractions of the gall-bladder bile were obtained. Second, since the symptoms accompanying giardiasis are vague, they may simulate other disease such as biliary tract disturbances, low-grade colitis, or duodenitis, it should be the rule to advise a non-surgical biliary drainage to determine the presence or absence of giardia.

The question of cholecystectomy in the treatment of giardiasis is important. Allodi and Pietra¹³ reported 11 cases of cholecystectomies

TABLE 1

Name	Age	Sex	Diarrhea	Colitis	Occult Blood Stool	Other symptoms	Eosinophiles	Method of Treatment	Relapse	Second course of treatment	Method of Diagnosis	Reaction to Medication
F.W.	29	F	++	○	○	nausea vomiting pyrosis	3%	Neocarsphenamine 0.4 gm. intraven. seven injections with a seven day interval.	None for eight	○	drainage Biliary	○
L.L.	36	F	+	○	○	headache nausea	8%	Neocarsphenamine 0.3 gm. intraven. Three injections with a seven day interval.	None for six months.	○	Biliary drainage	○
P.K.	35	M	○	○	○	drowsiness nausea chronic fatigue	15%	Neocarsphenamine 0.4 gm. intraven. seven injections with a four day interval.	Yes in one	Atabrine ½ gr. t.i.d. for two weeks, then one week rest repeated. No relapse for 6 mo.	Biliary drainage	○
O.L.	42	M	○	○	○	Jaundice chronic dyspepsia	2%	Atabrine gr jss daily for two weeks.	Yes, one viable giardia in 'B' bile in one month.	Atabrine ½ gr. t.i.d. for two weeks. No relapse for three months.	Biliary drainage	With first course as described before. Only slight headache with second course.

nausea and vomiting, and edema of the left hand and arm. These symptoms persisted until two days after he stopped taking atabrine. Then all of the symptoms left as suddenly as they had appeared. During the second course he was instructed to take an alkaline powder with each atabrine tablet. No symptoms accompanied this second course except a mild headache. No conclusions can be drawn from a single case, but it seems that the observation by Johnson⁸ that the toxic abdominal symptoms respond very rapidly to the administration of alkalis may have a bearing on this patient's tolerance to atabrine during the second course of treatment with the addition of the alkaline powder.

There are several points to keep in mind in giardiasis. First of all, since the natural habitat is the duodenum and the gall-bladder is commonly infested, it is obvious that the gall-bladder

in which giardia were found breeding in the gall-bladder. I believe cholecystectomy should never be performed for giardiasis alone unless there is ample evidence of calculous or non-calculous cholecystitis to justify the removal of the gall-bladder.

CONCLUSIONS

1. Atabrine has proved more efficient than other giardiocides in the experience of those who have used it.

2. The incidence of giardiasis in our experience is 4 per cent.

3. Delayed toxic reactions may occur with large doses of atabrine, but disappear spontaneously when the drug is discontinued.

4. The hypodermic injection of atabrine musonate is dangerous and should not be used.

5. Non-surgical biliary drainage should be

used in addition to examination of the stool in controlling a case of giardiasis.

6. The yellow coloration of the skin in some patients is not jaundice.

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"White Spots" of the Oral Mucosa

(Differential Diagnosis of a Common Mouth Lesion)

Leukoplakia—Characterized by hard, whitish-grayish patches, of irregular design, sometimes by hardened plaques. Usually on commissure and buccal surfaces. Local irritation is probably a common cause. Occasionally has a syphilitic background. Definitely a precancerous condition; a precursor of squamous cell epithelioma. Fissuring clinically indicates malignant degeneration. Treatment: Local areas removed by electrotherapy; widespread, ordinary local irritants. If syphilitic background, syphilis to be treated, although no involution of leukoplakia will occur.

Thrush or Moniliasis—White deposits. Coagulated milk appearance. Due to a *Monilia albicans*, a fungus. Treatment: active. Organic dyes. Local applications. Prognosis: Good. Rarely becomes a serious generalized infection.

Lichen planus—Linear cross lines with white papules. Annular lesions. Papules with violaceous borders. Plaques with violaceous borders.

Lupus erythematosus—Red granular lesions with white centers. Often associated with lupus erythematosus of the body.—Cleveland J. White, M.D., Chicago, Ill.; *Northwest Medicine*, Vol. 33, No. 11, November, 1939.

Edgar Allen Poe

(Psychiatric Case Study)

Much of Poe's writings, his attraction by the bizarre and phantastic and his introversion, are suggestive of a splitting of the psyche. However, other features are sufficient to lead us to reject the diagnosis of dementia praecox. General paresis is eliminated by the fact that Poe did not have a rapid and progressive decline. His psychosis extended over a period of many years with a tendency to become more marked after 1842. The average life of an untreated parietic is two years after the beginning of symptoms. While there may be early remissions the progress downward is rapid and steady. In those days paresis was never treated. Poe was never suspected of having syphilis. The possibility that his mental disorder was the result of the abuse of alcohol must be considered. He started drinking early and became a confirmed dipsomaniac with long periods of abstinence intervening. As he grew older his periods of indulgence became more frequent. A very small amount of alcohol was sufficient to start him on a prolonged debauch. We recognize the fact that alcoholic psychoses occur but more frequently the abuse of alcohol is symptomatic of some underlying personality disorder. Poe's mental confusion, paranoid projections, fear of imaginary assassins, fabrications, untruthfulness, grandiose tendencies, and ambivalence may have been of alcoholic origin. All of these symptoms are encountered in alcoholic psychoses. However, we know that Poe had a depression at the age of fifteen at the time of the death of Mrs. Stanard and that while he was living more or less comfortably in Richmond in the position of editor of the *Southern Literary Messenger* and had won the respect and confidence of his employer he became depressed and sought refuge in drink. His periods of alcoholic indulgence, especially before 1842, were practically always preceded by depressions. Poe wrote voluminously and all his manuscripts had to be handwritten. He revised and revised. He worked long and hard during his periods of activity. His psychotic episodes were probably more numerous than we know and they were essentially episodes of depression. Therefore, I offer the diagnosis of manic-depressive psychosis, with episodes of depression.—Edward F. Reaser, M.D., Huntington, W. Va.; *W. Va. Med Jour.*, Vol. 36, No. 2, February, 1940.

It is a significant fact that although there has been a tremendous decline in mortality from tuberculosis, there is evidence that the risk of household contacts has not been appreciably reduced. As the disease declines it is apparently more and more concentrated in the immediate environment of the open case.—Doull, James A., *Amer. Rev. of Tuber.*, Dec., 1939.

Reinfection in Syphilis

GEORGE E. CLARKE, M.D., and ELLIOTT L. GLICKSBERG, M.D.

REINFECTIONS in syphilis if they occur at all are exceedingly rare. It was previously held that a second infection of syphilis could never occur. With the advent of modern heavy metal therapy, this view has changed and several cases of superinfection and reinfection have been reported. None of these cases can be classified as indisputable reinfections. Bernard¹ listed certain requisites which must be attained in order to establish the diagnosis, and differentiated pseudo-reinfection and superinfection. Stokes² and his co-workers have reviewed the subject and elaborated upon Bernard's work to establish certain rigid criteria arranged in varying grades of strictness. They classify the reinfections as possible, probable, or indisputable, depending upon their adherence to the requirements set forth in each classification. They state that the differentiation between relapse and reinfection in man is a difficult matter and that the number of true reinfections must be exceedingly small.

Of the total number of 5952 cases of early syphilis studied as part of the League of Nations Health Organization problems, they classified 360 as mucocutaneous relapse while 40 were considered as possible reinfections. None of these 40 cases was able to withstand the rigid criteria of an indisputable reinfection, nine were considered as probable reinfections, and 31 as possible.

Moore³ contends that the standards established by Stokes² and his co-workers are too inflexible and that each case must be judged on its individual merits. He further states that the only real criterion of cure is the absence of any clinical or serological evidence of syphilis over a period of many years.

EVIDENCE OF RELAPSE

Stokes² maintains that mucocutaneous lesions occurring within the first two years of an infection are in themselves evidence of relapse, since relapse is nine times as common as reinfection. Relapses occur more commonly in darkfield positive seronegative patients than in seropositive cases and are even further diminished in those who have shown florid secondary cutaneous manifestations. He has analyzed the figures and states that relapse occurs in 10 per cent of the cases of seronegative primary syphilis, and in only 4.16 per cent of cases manifesting florid secondaries during the first year of the disease.

The Authors

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On this basis it is assumed that individuals who exhibit generalized secondary lesions develop their own immunity and are less prone to suffer relapse.

Experimentally reinoculation is possible. Brown⁴ in a study of experimental immunity in rabbits states that the protection is characterized by a series of progressions and regressions but that during the incubation period there is little immunity. He shows that in cases where arsenicals have been given in inadequate dosage, the protective immunity is diminished and the original infection becomes active again, or relapse occurs. He further states that if an inadequately treated animal is reinoculated, it develops cutaneous manifestations. Attempts at reinoculation in adequately treated animals show that their susceptibility depends upon the stage in which treatment of the primary infection was begun. If adequate treatment was instituted early, the immune reaction was suppressed, thereby rendering the animal more susceptible to reinfection. These experimental findings, however, cannot be transferred in toto to our study of humans.

In the past few years many cases of superinfection and reinfection have appeared in the literature. Klauder and Butterworth⁵ reported the case of a patient with active neurosyphilis, who developed chancre redux 17 years after the appearance of the first lesion. Tobias⁶ reported the development of a primary lesion on the right labium in a woman who had received chemotherapy and fever therapy for cerebrospinal syphilis. Millspaugh⁷ presented a series of seven cases of syphilitic reinoculation, most of which are in the possible class. In an analysis of 18 reinfections by Millspaugh,⁸ these cases are seen to fall into the same category. Many other au-

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thors have reported cases, most of which appear to be relapses or possible reinfections.

Cannon⁹ has presented a patient with an unusually complete history. His patient was a 26-year-old white man who originally presented a typical penile chancre, with inguinal adenopathy, pharyngitis and a scant maculopapular eruption. Darkfield examination of the penile lesion was positive and a blood serology taken at the same time was also positive. The patient received 14 injections of old arsphenamine, 35 intramuscular injections of mercury, and 60 mercury rubs. Potassium iodide and mercury were also taken orally for a period of one year. After the seventh arsphenamine injection, the patient developed a hemorrhagic encephalitis from which he recovered in three to six weeks and antisyphilitic therapy was again instituted. His Wassermann reaction was normal after the seventh arsphenamine injection and remained so on several other occasions. Three spinal fluids taken during the year and a half of treatment were normal. On discharge and afterwards the patient was clinically and serologically free from syphilis. The patient returned approximately 16 years after the original infection and complained of an anal ulcer of one week's duration. Darkfield examination of the ulcer was positive for spirochetes, and the blood serology was negative. Gland puncture yielded spirochetes on darkfield examination and the histologic diagnosis of the lesion was "probable chancre". Three weeks after the positive darkfield, the blood serology was slightly positive and later became strongly positive.

Treatment consisted of a total of 4.8 grams of old arsphenamine, 14 injections of mercury salicylate, and alternating bismuth and mercury injections. The blood became normal three months after treatment was started and remained so. The spinal fluid, physical examination, and roentgenogram of the heart and aorta were all normal. This case probably fulfills more of Stokes¹² criteria than any case previously reported. It falls short of the indisputable classification, but can certainly be listed as a case of probable reinfection.

Of 440 cases of early syphilis seen in the Night Venereal Clinic of the Cincinnati General Hospital in the past three years, a few have undergone relapse, but only one case of probable reinfection has occurred. This patient was a 47 year old white man who was first seen three years previously in the Genito-Urinary Clinic with prostatitis and a normal blood serology. He was admitted to the Night Venereal Clinic March 3, 1937, with a penile ulcer of two days' duration. On physical examination, a round, crater-like, indurated lesion of 1 cm. in diameter was noted on the glans penis. A left-sided inguinal adenopathy was present. Darkfield examination revealed the presence of spirocheta

pallida. A blood serology taken at this time was normal, and remained so during the entire course of treatment. The patient was put on intensive therapy, and received 17 injections of neoarsphenamine (total 15.3 grams), 20 injections of mapharsen (total .75 grams) and 60 bismuth injections (total 60 grains) over a period extending from March 3, 1937, to December 27, 1938. Several serologies taken during this time were all normal.

The patient was put on a rest period on December 27, 1938. At this time, he had no clinical or serological evidence of syphilis, although a spinal fluid examination was not done. Serologies taken during his rest period were all normal including one taken just three weeks prior to the time he returned with his second infection.

On December 20, 1939, two years and ten months after his original infection, the patient returned with an indurated ulcer on the anterior portion of the foreskin. He gave a history of having been on a drunken orgy just after his last serology was taken. He was so intoxicated that while he could recall sexual exposure he could not recall who his feminine companion had been, and it was impossible to trace her.

Physical examination of the patient revealed an indurated ulcer on the anterior portion of the foreskin, bilateral inguinal adenopathy and a scant erythematous maculopapular eruption on the chest, back and flexor surfaces of the arms. Darkfield examination of the penile lesion revealed myriads of spirocheta pallida. The patient's serology was now positive for the first time. Mapharsen therapy was instituted and the cutaneous lesions promptly healed. Spinal fluid examination done at this time was normal.

This case falls just short of an indisputable reinfection but can certainly be classed as a probable one. For clarity we will present Stokes¹² criteria of an indisputable reinfection and compare the salient points in this case.

STOKES' CRITERIA OF AN INDISPUTABLE REINFECTION

1. First infection proved by BWR or darkfield.
2. Negative physical examination 2 years after treatment.
3. Negative blood Wassermann for 1 year after treatment.
4. Negative spinal fluid at end of treatment.
5. No relapse between the two infections.

CORRESPONDING FACTS IN OUR CASE

1. First infection was proved by presence of spirocheta pallida on darkfield examination.
2. Physical examination one year three months after end of treatment was normal.
3. Blood Wassermann reaction was normal at time of first infection and remained so for two years ten months. It was normal just three weeks before the patient returned with his second infection.
4. No spinal fluid examination was done at end of treatment. It was normal when patient returned with second infection.
5. No relapse occurred.

- | | |
|--|--|
| 6. Definite exposure history for second infection. | 6. Patient gave history of unprotected exposure to unknown person three weeks before onset of second chancre. |
| 7. Infectious source for second infection. | 7. Unable to trace source. |
| 8. Normal incubation period for second chancre. (7-40 days). | 8. Incubation period for second chancre was 21 days. |
| 9. Second chancre in different site and different lymph drainage than first. | 9. First chancre was on the glans penis near the urethral orifice. Second chancre was located on the foreskin. Lymph drainage is the same for both these areas of the penis. |
| 10. No activity at site of first chancre. | 10. No activity was present at site of first chancre. |
| 11. Positive darkfield, second chancre. | 11. Darkfield examination revealed presence of numerous spirocheta pallida. |
| 12. Satellite adenopathy present, second chancre. | 12. Satellite adenopathy was present. |
| 13. Blood Wassermann reaction of second infection negative at start must change to positive. | 13. Blood Wassermann reaction was negative three weeks before patient returned with penile lesion and a faint roseola. It was positive at time of secondary eruption. |
| 14. Secondary eruption must appear not less than 20 days after first chancre. | 14. Treatment was originally instituted when patient was in darkfield positive sero-negative stage. |
| 15. Treatment of first infection must approximate 20 arsphenamine injections and 20 bismuth or mercury injections. | 15. Treatment consisted of 17 injections of neoarsphenamine, 20 of mapharsen, and 60 of bismuth. |
| 16. Time interval between first and second infection must be 2 years or more. | 16. Time interval between the two infections was two years ten months. |
| 17. Competent observation must be had in both infections. | 17. This was fulfilled. |

COMMENTS

Certain facts prevent us from classifying this patient as an indisputable case of reinfection. In reviewing the preceding comparisons, it is well to bear in mind that the criteria established by Stokes² and his coworkers are arbitrary and up to the present time there has never been a reported case which fulfilled every requirement. For the few deviations in the case presented, there are qualifying features. No spinal fluid examination was performed when treatment was discontinued. However the patient had never developed a positive blood Wassermann reaction, he had no signs or symptoms of cerebro-spinal syphilis, and spinal fluid examination at the time of the second infection was normal. On this basis it is safe to assume that he never had any central nervous system involvement.

It was impossible to trace the source of the contact as being definitely infectious. Due to the fact that the patient was too intoxicated to remember any details of his exposure this point must remain unknown. It is significant to note that three weeks after the only contact the patient had had in several months, he developed a primary lesion and an early secondary cuta-

neous eruption with a positive blood Wassermann reaction.

The inguinal lymph nodes were involved in both infections. This would be true for any reinoculation occurring on the genitals. The second infection would have to be located extragenitally in order to involve a different lymphatic drainage.

The blood Wassermann reaction was positive when the patient presented himself with the second infection. It is significant that every previous serology had been normal including one taken three weeks prior to exposure. When the patient returned he had a primary lesion with early secondary manifestations and the serology was now positive for the first time in either infection.

No secondary eruption appeared within 20 days of the first chancre. The patient was in a dark-field positive seronegative stage when intensive therapy was instituted and therefore did not develop an apparent secondary cutaneous eruption. We consider this to be a point in favor of the complete cure of his original infection.

SUMMARY

A case of indisputable syphilitic reinfection has never been reported.

Experimentally it is an established fact that syphilitic reinoculation is possible.

A case is presented which fulfills most of the criteria enumerated by Stokes and his co-workers. 19 West Seventh St.

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Communicable disease control in schools must be a cooperative activity of the practicing physician, the school medical staff and the health officer. Protection of the public health can be provided only if each utilizes to the fullest possible extent, tested methods of control and maintains a receptive but critical attitude toward proposed activities in this field.—Ernest L. Steb-
tins, N. Y. State Med. Jour., December, 1939.

Abdominal Pregnancy: Report of a Case at Full Term

J. R. SPRAGUE, M.D., and M. R. CHAPPEL, M.D.

DUE to the fact that full term abdominal pregnancy is extremely rare, another case seems worthy of report.

CASE REPORT

Mrs. G. B., age 29, Wt. 146, white, Para 2 Gravida 3, comes to one of us (M.R.C.) stating she is pregnant and feels ill.

Past History—She has been married 10 years and has two normal children, ages 7 and 9; both pregnancies were uneventful. She gives a history of some gynecological trouble a few years before this pregnancy.

Her last normal period was Nov. 18, 1938. In January, 1939, she had cramps and a bloody discharge for two days. She was seen by another physician who ordered rest in bed, which apparently cleared up the trouble.

She was first seen by me May 6, 1939, complaining of fever, chills, pain in right side and frequent urination. Throughout the whole term she has complained of abdominal pains, frequent cramps, and vomited frequently.

PROGRESS NOTES

May 6, 1939, examination revealed a blood pressure 130/85, pulse 110, temperature 99 2/5. Abdomen enlarged almost to umbilicus. Tenderness over the right kidney, ureter, and bladder. Vaginal examination not done. Urinalysis—No sugar or albumen, urine loaded with pus. Treatment:—Sereneum t.i.d.

May 19, 1939—Chief complaint, aching all over, chills, and scanty urine. Physical examination. Teeth dirty and in need of repair. Thyroid enlarged; head normal otherwise. Chest—clear.

Heart normal, sounds accentuated. Tenderness over both kidneys and bladder. Vaginal examination not done because of late date in pregnancy. Extremities normal. Treatment: (1) Pyridium t.i.d.; (2) Theobromine—2 days and rest 2; (3) Hot salt water douches.

May 24, 1939. Urinalysis—No sugar, albumen, or pus.

July 7, 1939. Husband telephoned at 8 a. m. saying his wife was in labor. House call that night revealed faint labor pains every 20 to 30 minutes. No dilatation on rectal examination. Patient tired, vomiting. Given ¼ grain of morphine.

July 24, 1939. Complaining of upset stomach and lots of gas, also miserable feeling in abdomen. Has fever blisters on lips. Given Bismuth Kaolin and Atropine Sulfate, until stomach is settled. Also advised when she felt better to take castor oil and 10 grains quinine sulfate to induce labor.

July 29, 1939. Patient seen at office 9:30 p.m. complaining of labor pains. Strong pains were present with contraction of abdominal walls. Fetal heart heard in lower left quadrant. Head presenting with back to left. Given ½ c.c. Thymus-pituitary solution hypodermically. Pains stopped late that night.

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August 4, 1939. Reported to my office saying "baby had moved." No labor pains. Transverse lie discovered. X-ray ordered.

X-ray report. An apparently large fetus is observed with head high up in the left upper quadrant of the abdomen, the back extends across the abdomen to the right, and the legs extend down into the pelvis. (Cesarean section advised by me.)

She entered the Sheltering Arms Hospital on August 4, 1939, for the purpose of a cesarean section. An examination by me (J.R.S.) con-



Figure 1

firmed Dr. C.'s findings and I felt justified in doing the operation.

Following routine preparation she was taken to the operating room at 3:00 p.m. and given ether anesthesia. A low paramedian incision opened the abdomen. Inspection revealed an ab-

dominal pregnancy. The baby was covered with a thin membrane having its origin in the neighborhood of the left tube and ovary. The placenta was attached to the anterior abdominal wall and the omentum. There were numerous large blood vessels which were thin walled and bled freely when disturbed. We ruptured the membrane and removed the baby quickly, clamping and severing the cord.

Hemorrhage was controlled by clamping the vessels and pedicle near the left tube. We then removed the placenta and membrane after multiple ligation of the omentum. Satisfying ourselves that hemostasis was complete, we closed the abdomen in layers with chromic catgut and stay sutures. The mother was returned to bed in moderate shock. She was given saline by hypodermoclysis. She made an uneventful recovery and left the hospital on August 18, 1939.

The baby was a female, weighing 7 lbs. 2 oz. It had equinus varus. The head was asymmetrical. It was resuscitated with difficulty and oxygen was administered during the next two days. It had frequent attacks of cyanosis. Fluids were vomited with considerable force soon after being administered. It died after 48 hours. We were unable to get an autopsy.

Rheumatic Heart Disease

When the diagnosis is certain the prognosis depends somewhat on the age at onset of the rheumatic infection. In younger persons the disease may take a progressive and disastrous course. In about 5 per cent of young sufferers it will have run its course within a year, in 10 per cent within five years. However, in the majority the acute infection subsides, the valvular lesions scar up, and the condition may remain quiescent for many years. This is one of the fundamental changes in our concept of rheumatic heart disease. It has been brought about especially by the Frenchman Laubry. We used to think of this disease as a constantly progressive affair, gradually consuming the reserves of the heart. We now believe that frequently a state of equilibrium is reached, during which the valvular lesion is not progressive and during which cardiac hypertrophy is adequate. If nothing happens to upset this equilibrium it may last indefinitely and actually 5 to 10 per cent of the patients reach the age of 70 years or more. This is especially true in the case of men, who are prone to aortic lesions which draw on the richer reserves of the left ventricle. The younger patients offer the better prognosis once the lesion has become arrested; if the rheumatic infection first occurs in adult age the life expectancy is not so good.

To express these observations in figures is not easy, for the results obtained by statistical studies depend so largely upon the source of the material. Amongst persons with rheumatic heart disease who reach adult life, probably 25 to 40 per cent survive the age of 40 years.—Julius Jensen, M.D., St. Louis, Mo.; Jour. Kansas Med. Soc., Vol. XLI, No. 2, February, 1940.

Cholecystography

The oral method of dye administration of Menees and Robinson, employment of phenoltetraiodophthalein of Graham and Cole, use of decholin by Jankelson and Altman, and use of pitressin according to Collins have already been alluded to.

Three other contributions should be discussed. These are the fat meal and the method of rapid cholecystography of Antonucci, and the "double dose" method of Stewart and Illick.

We have not employed the fat meal in cholecystography. The gallbladder fills by way of the cystic duct. It empties by the same route and by concentration through its mucosa. If it will fill, it should empty. Much importance is attributed to the change in size of the gallbladder image. The gallbladder image after administration of the fat meal would indicate resiliency or elasticity of the gallbladder walls. We have held the opinion that, if there should be a degree of pathologic change in the gallbladder which would result in the production of an inelastic wall, the concentrating function of the mucosa would have been lost. We have, therefore, decided that information to be gained from this source is not worth the time and effort that are required. It seems to us merely to be an additional complication to the procedure of cholecystography. Others, however, have demonstrated filling defects this way that otherwise would have been undiscovered.

Double dose method of Stewart and Illick, or reinforced method of cholecystography is widely accepted. Fundamentally this procedure consists in repeating the dose of dye given orally until the gallbladder does become visible. This principle diverges from the fundamental one in cholecystography in that it goes still further away from working with known values. In both intravenous and oral cholecystography we vary the dose slightly according to the weight of the patient. The small patient has a slightly decreased dose, and the very heavy patient may be given as much as 3½ gm. of phenoltetraiodophthalein intravenously. We do not believe that the pathologicoanatomic findings from the cholecystography, whatever the method used, are of more than minor importance. On the contrary, we are of the opinion that it is a functional test of the gallbladder and the matter of impairment of this function is in direct relationship to the symptoms and pathologic findings at operation. We believe, therefore, that the double dose method, instead of being an advantage, is a distinct disadvantage in cholecystography.—Sherwood Moore, M.D., St. Louis, Mo.; Northwest Med., Vol. 39, No. 2, February, 1940.

When a woman complains of man's cruelty, let us not overlook the tyranny of tears.—Fetterman.

Eye Changes in Pregnancy

BARNET R. SAKLER, M.D.

MANY ocular conditions may be encountered during the course of pregnancy. Some of these are coincident with and independent of pregnancy and therefore need no further discussion. Others secondary to the influence of pregnancy, although interesting, are of no serious import. Two such conditions are visual field changes, and hemeralopia.

Perimetric field changes characterized by contraction of the temporal fields have been reported many times. These so-called bitemporal hemianopsias are supposedly due to a physiological hypertrophy of the pituitary body with consequent pressure on the optic chiasm. Traquair and Peter, international authorities on field studies, deny the occurrence of bitemporal hemianopsia in pregnancy, and emphasize the fact that not a single case has been reported, where the field defects were typical of the bitemporal hemianopsia as first described by Cushing in cases of pituitary tumor. (Typical superotemporal quadrantic defects with scotomata inside the periphery.) Dr. Johns of Boston, in her visual field studies of pregnancy reported in 1929, did not find any cases of bitemporal hemianopsia but uniform findings, when the fields were abnormal, were concentric contraction for form and colors, with enlargement of the Blind Spot. These findings are probably due to a lowered retinal sensitivity which may occur as part of the general picture of pregnancy. Traquair considers the field defects of pregnancy as psychic and functional phenomena.

HEMERALOPIA

Hemeralopia or night blindness occurs more often than one suspects. It is usually found in poorly nourished pregnant women. These patients complain of poor vision in dim light and many also have marked photophobic symptoms. This condition can be relieved quickly by supplying adequate amounts of vitamin A in the diet and disappears abruptly and completely after delivery.

THE TOXEMIAS

The important ocular lesions occurring during pregnancy are those associated with the toxemias of pregnancy. These ocular manifestations can be of great diagnostic, prognostic, and therapeutic value to the obstetrician. In reviewing the literature one is impressed with the lack of correlation of the ophthalmological and obstetrical findings in cases of toxemia. Yet such con-

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ditions as optic neuritis and retinal hemorrhages have occurred in severe cases of pernicious vomiting during the early months of pregnancy and angiospastic retino-neuritis, retinal detachment and eclamptic amaurosis have complicated the picture of hypertensive toxemias in the later months of pregnancy.

RETINITIS

Stander, in 1932, reported two cases of hemorrhagic retinitis in patients with hyperemesis gravidarum. Both pregnancies were terminated, the first eight days after the retinal findings, the second immediately afterwards. The first patient died, the second recovered. Similar cases have been reported by Schiotz and Tillman. The appearance of retinal hemorrhage or optic neuritis should be considered as an absolute indication for the immediate termination of the pregnancy. Earlier and more frequent ophthalmoscopic examinations in cases of pernicious vomiting can be of great assistance in the management of such cases.

In the hypertensive toxemias of pregnancy, the retina develops changes which present the most interesting problem to the ophthalmologist as well as to the obstetrician. These changes may be of some differential diagnostic importance with reference to the question of chronic nephritis. But their greatest value lies in their therapeutic significance relative to the problem of terminating pregnancy and their prognostic bearing on the future health and vision of the mother.

The diagnosis of hypertensive toxemia of pregnancy is usually made on the findings of elevated blood pressure, proteinuria, and edema, the most constant of which, being the hypertension. O'Brien of Iowa states that to these signs should be added the angiospasm or angiosclerosis of the retinal vessels and retinitis.

The ophthalmoscope was invented by Helm-

*Presented before the Cincinnati Obstetrical Society on March 16, 1939.

holtz in 1851, and in 1855, Von Graefe reported the first case of retinitis with retinal detachment. Since that time many studies have been made in an effort to evaluate the relationship of the retinal changes to the problem of hypertensive toxemia. For practical purposes one may say that there are no visible changes in the retinal vessels during the course of normal pregnancy. Most ophthalmologists are agreed that the earliest change in the retina, in cases of toxemia, is a spastic narrowing of the arterioles. These spastic changes precede the picture of retinitis. Retinitis is characterized by the appearance of multiple hemorrhages, fluffy white, cotton-wool exudates and retinal adema which may involve the optic disc (retinopapillitis). The extent of the retinopathy more or less parallels the severity of the hypertension.

The genesis of the retinitis is theoretical. Some men believe that there is a definite circulating toxin which acts directly on the retinal elements and others attribute the retinal findings to the sudden ischemia produced by the spastic arteriolar changes. It is generally acknowledged, however, that if spastic retinal phenomena become manifest either alone or superimposed on organic vascular changes (chronic nephritis) it is an indication that the toxemia is resulting in active vessel wall pathology and if not controlled may go on to a retinitis. The organic changes which occur in the retinal arterioles are probably representative of arteriolar disturbances occurring throughout the body.

The majority of patients with toxemia are usually seen before retinitis develops. Retinal angiospasm appears early, usually affecting the more peripheral branches. This condition may remain localized or become diffuse in spite of conservative management. At the first sign of retinal hemorrhage or exudate, interruption of the pregnancy should be recommended. Cases reported by Wagener, Schiotz, Masters, Gibson and others, show that nearly 100 per cent of patients with retinitis, who were allowed to go to term, showed varying degrees of visual loss, permanent kidney damage and persistent elevation of blood pressure. Only about 25 per cent of these gave birth to living babies. None of the reports emphasized any significant maternal mortality.

The most difficult decision relative to the question of therapeutic termination of pregnancy arises in those cases where the spastic retinal changes develop at a period of questionable viability of the fetus (in as much as 85 per cent of the toxemias occur in the latter three months of pregnancy). Where signs of retinitis develop before the 28th week, there should be no question as to the method of procedure. It is better to terminate the pregnancy in the hope that careful prenatal management in subsequent pregnancies

will carry the patient through, with less danger to the future health of the mother.

Retinitis does not often recur in later pregnancies even though the toxemia may, unless permanent retinal arteriolar changes have developed. This necessitates a careful follow-up study of every toxemic patient for some time after the termination of the pregnancy. The decision as to whether a patient should become pregnant again must be based on a clinical analysis of the ability of the renal vascular system to withstand the additional strain imposed by the pregnancy. In cases where retinal changes develop after the 28th week, the treatment varies with the individual patient's past history, general physical condition, and the extent and localization of the retinal lesions.

A question that often arises is whether one can differentiate, ophthalmoscopically the various types of toxemia showing retinal pathology. There are no significant differences between the eyegrounds of preeclampsics and eclampsics. Patients with severe retinitis may show no convulsions whereas convulsions may occur with fundi showing only slight retinal changes. Ophthalmoscopic diagnosis of nephritic toxemia can only be made in cases, where eyegrounds have been studied, before the onset of the toxemia, perhaps as part of routine prenatal care. It is only in the exceptional case, therefore, that the ophthalmoscope can be of help in this problem of differential diagnosis. Low reserve kidney patients very rarely manifest any marked retinal changes, since the hypertension in these cases, is only moderate. A clinical diagnosis of chronic nephritis is no indication for the interruption of the pregnancy. However if a case of chronic nephritis develops an acute retinitis during the course of the pregnancy, not only should the uterus be emptied immediately, but the patient should be emphatically discouraged from future pregnancies. These are the cases that almost invariably have recurrences of the toxemia and retinitis. The prognosis for the life of the child is gravest in these cases. Burnier reports figures as high as 79 per cent, and Masters reports 60 per cent mortality in his series studied at the Indiana University Maternity Hospital. Williams states "Nephritic patients are apt to give birth to premature infants either dead on delivery or soon after". The danger of permanent visual loss to the mother is also greatest in this group of toxemic patients and blindness is too great a price to pay for a baby that is apt to be dead.

RETINAL DETACHMENT

Retinal detachment may complicate the picture of a pregnancy toxemia (Hallum 2 per cent of cases). Its occurrence should be considered as definite indication for emptying the uterus. The prognosis with reference to the future vision and

health of the mother, depends on the type of retinal detachment that is seen (Wagener). Retinal ablation can occur spontaneously, per se, as a result of a subretinal exudation of serous fluid from the choroid, or it may occur in association with a severe retinitis (subretinal edema). Patients with retinal detachment and no retinitis regain fairly normal vision quickly and show little or no evidence of permanent renal vascular damage. Future pregnancies may be uncomplicated. In patients who develop retinal detachment associated with retinitis, the visual prognosis depends on the severity and extent of the retinitis.

AMAUROSIS

Eclamptic amaurosis is a rare but interesting condition which occurs very suddenly, usually coincident with or shortly before, onset of convulsions. There is an almost complete loss of vision which is, however, never absolute. It usually lasts about 12 hours and central vision may return before peripheral. Ocular examination is entirely negative. Schiotz who reported 14 cases of eclamptic amaurosis states that the blindness is a transient condition and probably due to an edema of the visual centers in the occipital lobe, resulting in a bilateral homonymous hemianopsia. In making a diagnosis of eclamptic amaurosis in the absence of toxemic signs, Schiotz believes that one must exclude the possibilities of retrobulbar neuritis, cerebral hemorrhage, the effects of severe vaginal bleedings and hysteria. Examination of fundi, visual fields, and nervous system may be of help. Eclamptic amaurosis is not, in itself an indication for emptying the uterus.

CONCLUSION

1. The ophthalmoscope should be considered a valuable adjunct in the modern management of the toxemias of pregnancy.
2. Hypertensive, angiospastic, toxemic, retinal changes appear early.
3. It is generally conceded that toxemic cases with normal fundi make a complete recovery.
4. The visual prognosis in toxemic patients who develop peripheral retinal changes is on the whole surprisingly good.
5. A diagnosis of optic neuritis, retinitis or retinal detachment, presents a definite indication for the immediate termination of the pregnancy, in an effort to safeguard the future health and vision of the mother.

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Duodenobiliary Drainage

Many variations in the technic of duodenal intubation can be developed by experienced technologists and a high degree of precision is attainable without the aid of fluoroscopy. Olive oil is preferred as a biliary stimulant, although it excites the writhing duodenum, because it is a reliable and powerful cholagogue, does not mix with the duodenal pool or disturb sediments, permits accurate quantitative bilirubin determinations, and readily exhibits the effects of pancreatic lipase. The van den Bergh reaction on bile also affords a rough estimate of the concentration of bile salts by the amount of precipitate formed when the diazo reagent is added to the bile specimen. Red mucus and the oleaginous substance constitute the chief objects of pathologic interest commonly found in bile, and both are associated with duodenal dysfunction related to the ulcer and pre-ulcer syndromes. Each can be identified without microscopic examination, although microscopy is essential for the detection of other objects including biliary tract epithelium and crystals, the clinical interpretation of which is still controversial, for it is doubtful if gallbladder epithelium could be identified as such, and crystals cannot be regarded as indicative of the presence of gallstones. The oleaginous substance appears to be demonstrable histologically in bile duct epithelium, especially in the region of the duodenal ampulla, as a brownish discoloration in the cytoplasm of the columnar cells, and possesses the property of an organic solvent with a high selective affinity for bilirubin. Red mucus is stained with the decomposition products of hemoglobin before it is thrown off from foci of submucosal hemorrhage and erosion points, and is regarded as indicative of pre-ulcer changes. Duodeno-biliary drainage affords the method of choice for the diagnosis of obstructive jaundice.—Norman W. Elton, M.D., Buffalo, N.Y.; *Review of Gastroenterology*, Vol. 7, No. 1, January-February, 1940.

Doctors should do their knocking with a reflex hammer; verbal blows may evoke sparks.—Fettermann.

The Recognition of Skin Cancer

HARRY NIEMAN, M.D.

IT is estimated that 6 per cent of the deaths due to cancer are attributable to cancer of the skin and buccal cavity; in other words, to cancer of easily accessible, visible parts. The presence of a persistent, nodular, ulcerous or fungoid lesion in an adult should bring to mind at least the possibility of skin cancer.

The dermatologist divides carcinoma into two main groups: basal cell carcinoma and squamous cell carcinoma. There is a third great group of malignant neoplasms which includes such affections as malignant melanomas and sarcoma. This paper is confined to the recognition of the basal cell and squamous cell carcinomas.

The evolution of skin cancer may be extremely slow. It is not unusual to see a lesion in aged persons which has been present for ten years, with no evidence of metastasis. As a rule, the duration of the lesion, if over three or four years, points strongly to its being a basal cell growth. On the other hand, a lesion that has been present less than a year and has attained the size of a bean is likely to be a squamous cell carcinoma.

It is said that basal cell carcinoma usually occurs on the face, while squamous cell carcinomas appear on the lips and hands. Such generalizations about location are both helpful and misleading. The writer has seen typical lesions of both types occurring on the trunk and extremities.

Exposure over a period of years to the actinic rays of the sun is one of the most common causes of skin cancer, especially in persons of light complexion. Skin cancer rarely occurs in Negroes, is uncommon in dark complexioned races and is usually seen in the blond, blue-eyed individual whose occupation requires exposure to the sun. The incidence of cancer of the face and hands in farmers is well known. Here one usually notes the senile, weatherbeaten skin, with the presence of senile keratoses, one or more of which exhibit signs of malignant degeneration.

The term "precancerous skin lesions" has been used for many years to designate lesions which are followed more or less frequently by cancer. Whether or not skin cancer can develop in normal tissue, or whether every malignant tumor is preceded by an abnormality, has not been determined. It is the belief of most dermatologists that all skin cancer develops from some preceding lesion. Montgomery states that in at least one out of every five instances leucoplakia and

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senile keratoses develop malignant changes. The following conditions are frequently designated by dermatologists as "precancerous": leucoplakia, senile keratoses, X-ray burns, farmer's skin, cutaneous horns, nevi and sebaceous cysts.

Squamous cell carcinoma is somewhat less common than the basal cell type. Its evolution is often very rapid. Metastasis through the lymph channels may occur at any time, leading to a fatal termination. This affection most frequently involves the mouth, tongue, hands or lips, the lower lip being the most common location. Carcinoma of the lower lip is four times more frequent in men than in women.

A squamous cell carcinoma is usually first observed as a minute lump, which rapidly increases in size, bleeds easily, and is surrounded by, and located on a hard infiltrated area. The growth is either fungous or ulcerative. The surface becomes warty and bears a resemblance to grayish granulation tissue. On histological section, this type shows an invasion of prickly cells into the corium with "epithelial pearl" formation.

The basal cell epithelioma was first described by Jacob in 1827, and for many years was known as Jacob's ulcer. This type of skin cancer is very common and is usually found on the face. The classical lesion shows a rolled, pearly edge, central ulceration, and involution. Sooner or later there is ulceration and crusting. From time to time the crust exfoliates leaving an eroded surface which is soon covered with another crust. With each exfoliation the ulcer becomes deeper. The lesion may exist for many years with but slight extension, or it may cause marked destruction and mutilation. On histological section, this type of epithelioma shows well defined epithelial strands in the corium with typical palisade arrangement of cells at the periphery.

One must differentiate skin cancer from syphilis, lupus vulgaris and actinomyces. This is

Read before the Miami Valley Hospital Clinical-Pathological Conference, Dayton, Ohio, November 10, 1939.

usually not difficult. Carcinoma usually occurs in older people, while chancre usually occurs in early adult life and gumma ordinarily develops in middle age. In basal cell carcinoma, the patient usually has had his lesion for from one to ten years, while most squamous cell carcinomas have existed for at least a few months; in the case of a chancre, for from four to eight weeks; and in lupus vulgaris, since childhood. In carcinoma there is usually a single lesion; in late cutaneous syphilis, lupus vulgaris and actinomycosis there are patches composed of multiple nodules. Cancer is common on the face and the dorsum of the hands; chancre appears usually on the genitals, fingers or lips. Actinomycosis presents multiple sinuses discharging pus. Clinical impressions of the diagnosis are confirmed by laboratory findings: in carcinoma, by biopsy; in chancre, by dark field examination and sometimes by serologic tests; in gumma, by biopsy and serologic tests; in lupus vulgaris, by demonstration of the tubercle bacillus and by the histologic picture; in actinomycosis, by demonstration of the fungus.

In advanced squamous cell carcinoma the results of treatment depend on: (1) the grade of malignancy; (2) the part involved; (3) the potency of treatment. The result is always uncertain. There is as yet no specific or certain therapeutic measure.

In early cancer of the skin, before the lesion is invasive and before metastasis occurs, a cure can be effected. In cancer of the inner organs such an achievement is often impossible, but in skin cancer and in mouth cancer, a cure can be attained in most instances. Many skin cancers develop in longstanding, precancerous, recognizable lesions. It is possible to recognize and to remove permanently most of them. The value of early diagnosis and prompt treatment cannot be overemphasized.

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I am grateful to Dr. Walter Simpson who assisted me by reading the manuscript.

Tuberculin testing of mental patients at the Peoria Hospital in Illinois disclosed the fact that 52 per cent of the patients who were not in tuberculosis wards were positive to tuberculin and 23 per cent showed definite evidence of pulmonary tuberculosis with an additional 11 per cent who were classed as questionable. Among the schizophrenics, 23 per cent had tuberculosis. In view of this incidence it would seem that tuberculin testing should become a routine procedure in admitting patients to mental disease hospitals and that positive reactors be X-rayed at regular intervals with particular attention to the dementia praecox group.—Pollak, M. and Turow, I. L. Conf. U. S. Vet. Adm. Phys., 1938.

Metrazol for Acute Alcoholism

The psychiatric division of Bellevue Hospital has been studying alcoholism and the many problems it creates for some time. Acute alcoholism presents two types of difficult clinical problems—the disturbed, resistive, violent alcoholic patient, or the patient in alcoholic coma. Ordinarily, the former group is treated with sedatives, restraint, and seclusion, and the latter with various stimulants. Because the number of alcoholics admitted to Bellevue is very large, any method which facilitates the management of such patients is desirable. Metrazol was therefore tried in a group of 50 patients, 34 of whom were in an excited state and 16 of whom were comatose.

... "Immediately after admission such patients were taken to the emergency room and received 5 cc. of 10 per cent solution of metrazol intravenously, the rate of injection being about 30 seconds for the 5 cc. We found that in a person narcotized with alcohol, this speed of injection failed to induce a general convulsion. In some individuals, twitching of the face appeared. We refer to this dose time factor as a 'subconvulsive dose'." . . .

... "After the injection the patient was kept in the emergency room for a short time and then sent to the ward best suited for his clinical condition. Sedation and other treatment were ordered as indicated. It was found, however, that a large number of the excited alcoholics would quiet down in two to ten minutes after the injection and no further special treatment would be necessary. Comatose patients frequently regained consciousness in five to thirty minutes and were able to give an adequate admission history." . . .

In discussing their results these authors state the administration of metrazol to acute alcoholics "was followed by a marked improvement in the clinical state. Such improvement manifested itself in the arousal of the comatose cases, and sedation of the excited group. This improvement was not due to any changes of the concentration of alcohol in the blood. It is suggested that this apparent biphasic effect of metrazol is due to a direct stimulation of the narcotized cerebral cortex. In the mildly narcotized, or agitated group, the improvement is ascribed to a stimulation of the depressed inhibitory center. Improvement in comatose cases is considered to be due to general stimulation of the central nervous system." . . . —Leo L. Orenstein, M.D., Karl M. Bowman, M.D., Julia R. Kagan, M.D., and Walter Goldfarb, M.D., *Amer. Jour. of Psychiatry*, Vol. 96, November, 1939.

Interpretation of Blood Sugar Figures

HENRY J. JOHN, M.D.

OFTEN one sees figures in the literature, or these are given verbally, of the height of blood sugar and no mention whether such figure represents the fasting or one or more hours after a meal. Such data are worthless and simply have to be disregarded. We find it even in text-books, a statement for instance that "a blood sugar of such and such height after a meal represents diabetes". Nothing could be more misleading for it is not true.

To illustrate the folly of the above statements, let us take two hypothetical cases, in each the fasting, the half, one, two, three and four hour post-prandial blood sugars which I have illustrated in the chart. The first case, as the figures indicate, is non-diabetic, the second definitely diabetic. Now let us analyze more closely the actual figures:

The fasting blood sugar in both is normal. Often only the fasting blood sugar is done upon the finding of glycosuria in order to establish a diagnosis and find out whether such a glycosuria is diabetic or non-diabetic. Already one can see that here a 50 per cent error would be encountered if such a diagnosis is made on the strength of the fasting blood sugar, for both cases would be classed as non-diabetic whereas but one is non-diabetic.

Now supposing we take the blood sugar half hour after a meal. In the first case the blood sugar is 176 and in the second 130. From these figures one would judge that the first case is likely diabetic and no suspicion of diabetes would be aroused in the second case.

Let us next take the one hour post-prandial figure. Here in the first case we encounter a figure of 252 and in the second 155. Here again, if a person did not know the time element after a meal or if one just disregarded it, one would be apt to say that the first case is diabetic and the second case normal when in reality just the opposite is true.

Now if we take the two hour period figure, we find in the first case 100 and in the second case 250. Here the interpretation would be "normal" in the first and "diabetic" in the second case which is true. But not knowing the time element this would again not be an intelligent interpretation but mere luck.

The third and fourth hour would present a similar picture as the second hour data.

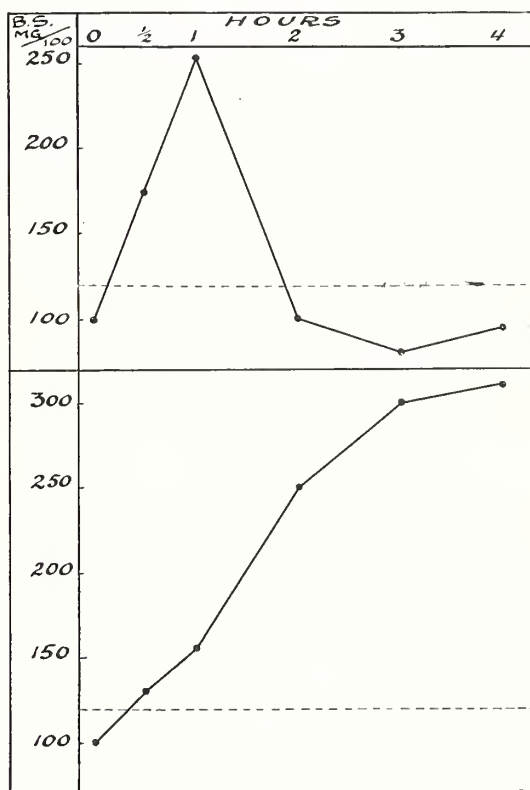
This then shows clearly how important the time element is in the interpretation of blood sugar findings. One can not disregard it if one is to work intelligently and be fair to the patient. The fasting blood sugar is no criterion

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for the diagnosis of diabetes unless this be far advanced when even the fasting blood sugar is high.

In a normal individual the blood sugar goes up following a meal for a short period, usually one to one and three quarters of an hour. Then it returns to normal. The picture in a diabetic is similar only more accentuated as shown in the chart. It can be more accentuated or less so,



depending on the severity of diabetes. Early in diabetes, i.e. before diabetes becomes severe, we will find the fasting blood sugar normal. However, the postprandial sugar becomes abnormally high. If we do nothing about this early stage

of diabetes then it becomes more severe and eventually even the fasting blood sugar will be high. The logical time to treat diabetes is in this early stage, before the fasting blood sugar is high, for thus most can be accomplished for the patient with the minimum of discomfort. Usually, just a sensible reduction in the diet is all that is necessary. To find out whether or not it is adequate naturally one has to follow up the case with further examinations.

However, the interpretation of blood sugar has to be done in an orderly manner. The most important points I have illustrated. For the diagnosis of diabetes we should have not the fasting but the two and a half hour post-prandial blood sugar after a heavy carbohydrate meal. This will tell the story, for no diabetic, no matter how mild, can give a normal blood sugar at this time. Furthermore, when blood sugars are taken and published they are without value as to their interpretation unless the post-prandial time element is stated.

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Classification of Psychoneurosis

In the October, 1939, issue of the *Annals of Medicine*, Dr. Theophie Klingmann of Ann Arbor, Michigan, presents a classification that looks thoroughly practical, one at least which could serve a good purpose until a better one arrives. Based upon the study of 400 cases, he was struck with the regularity with which certain psychoneuroses occurred in the same body types and with which other physical signs appear. Klingmann's classification is as follows:

(A)	Hysteria Psychasthenia Hypochondriasis	{	Asthenic and asthenic-athletic habitus
			Spasm of the radial arteries
(B)	Neurasthenia Reaction Depression Anxiety states	{	Acrocyanosis
			Dermographic
			Segmental hypothermia
			Excessive sweating and saliva
			Pyknic habitus
(B)	Neurasthenia Reaction Depression Anxiety states	{	Small pulse volume, low blood pressure
			Pale skin
			Segmental hyperthermia
			Anorexia, gastrointestinal and genito-urinary disorders

The psychic syndromes for both classes are:

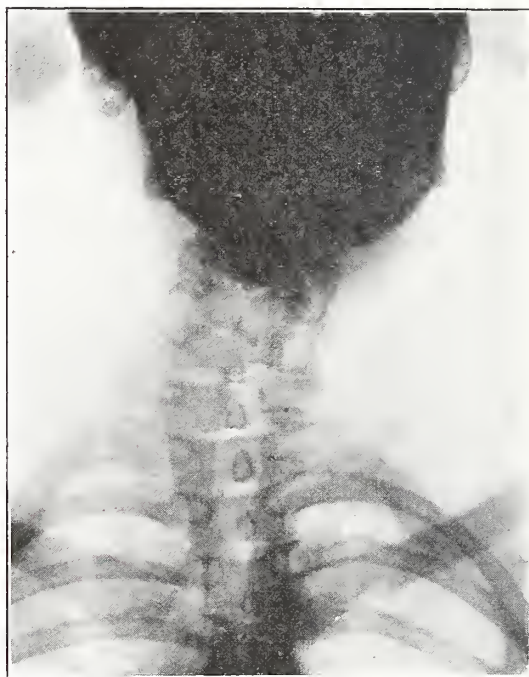
A	
Lack of attention	Uncontrollable emotional outbursts
Depression of spirits	Laughing or weeping
Loss of self control	Insidious loss of the power of decision
Excitement without apparent cause	Unwillingness to assume responsibility
B	
Sadness	Wild agitation
Fear	Intense self preoccupation
Anxiety	Inadequacy
Hopelessness	

Eighteen days after a nephrotomy for kidney abscess, the entire kidney came out through the wound: autonephrectomy.—Wilbur H. Haines, Philadelphia.

Scoliosis Due to Unequal Length of Transverse Process

Scoliosis is classed as functional and structural; the functional group being made up usually of children who by habit or posture, assume a deviation of the spine which they can correct with proper exercises and guidance. These are associated with undernutrition, general weakness, round shoulders and prominent relaxed abdomen. Habitual standing on one foot or leaning to one side at a desk produces a tipping to the right or the left of a single curve of the spine.

Structural scoliosis is due to a vertebral defect which may vary in degree from a hemivertebra to a simple difference in the length of the transverse process on one side from the other. This difference in the length of the process produces



X-Ray showing unequal length of transverse process of seventh cervical vertebra.

a curve with the concavity on the side of the longer process as a result of the difference in muscular leverage.

ILLUSTRATIVE CASE

C. L., age 16, was first seen January 13, 1938. His clinical appearance was defective posture. X-ray examination shows an unequal length of the transverse process of the seventh cervical vertebra.—Henry G. Hadley, M.D., Washington, D. C.

In fine, there is nothing in life except what we put in it.—Mme. Schwetchine.

Acute Abdominal Surgery in Childhood

PAUL W. SUTTON, M.D.*

FROM a surgical standpoint the important question to be decided in acute disorders of the gastroenteric tract and in the abdomen is whether operation is indicated, and if so when it should be performed. Since the age of the patient is related to the type of disturbance present it must receive consideration.

In the **newborn infant** congenital abnormalities assume primary importance, especially since a number of them cause intestinal obstruction. To be mentioned here are imperforate anus or occlusion or stricture of any portion of the bowel, and the presence of a congenital diaphragm in the duodenum or other portions of the gut. An intrinsic tumor mass may also obstruct the lumen or there may be pressure from without by tumors, enlarged lymph nodes or adhesions; most of these causes, however, being operative later than the neonatal period. The symptoms, which consist of vomiting and obstipation and perhaps abdominal distention, vary in character with the type of lesion. Operation may or may not be curative, depending upon the type of lesion.

While not an intra-abdominal lesion, special mention should be made of **tracheo-esophageal fistula** which, because it is almost always associated with obliteration of the esophageal lumen, causes regurgitation of all swallowed liquids, and suffocative attacks. It can readily be diagnosed by means of the fluoroscope and roentgenograms after the administration of barium. Unfortunately it has been impossible to remedy the defect by operative procedures. Persistent and projectile vomiting, coming on about two weeks after birth and unassociated with bile in the vomitus, when combined with a dilated stomach, reversed peristalsis in the upper portion of the abdomen and scanty stools, suggests the diagnosis of congenital **pylorospasm** or **pyloric stenosis**. Delayed gastric emptying time will be found by roentgenographic study. Medical treatment is indicated if the element of spasm is great, or surgical intervention if there is marked anatomical obstruction. Most important is preoperative and postoperative care, the patient being prepared by transfusion and the parenteral injection of fluid, and the same measures being employed after operation if necessary. The operative cure of pyloric stenosis is one of the most satisfactory procedures in pediatric surgery.

If the symptoms of intestinal obstruction are present and the vomitus contains bile, an abnormality distal to the pylorus and beyond the ampulla of Vater is to be suspected. In the duodenum or upper portion of the small bowel obstruction may be caused by a diverticulum or by constriction of the lumen by volvulus, diaphragm, or transduodenal band. In these conditions preoperative prognosis is impossible since the exact nature of the lesion cannot be ascertained until the abdomen is opened. Most of these "accidents of nature" present problems which cannot be coped with by the majority of general surgeons and, as a matter of fact, only a limited number of the lesions are amenable to operative procedures even by those surgeons particularly expert in pediatric problems.

In later infancy **intussusception** plays a prominent role as a cause of intestinal obstruction. It may at times be initiated by a polyp or a Meckel's diverticulum. When a tumor mass is found by abdominal or rectal palpation in cases presenting the usual signs of intestinal obstruction, intussusception must be suspected. It is not uncommonly mistaken for acute gastro-enteritis. Operation is the procedure of choice in intussusception and so-called "injections medical treatment" is not to be recommended. If operation is performed early the prognosis is good; if delayed until reduction is impossible and resection must be performed the fatality rate is extremely high.

The presence of an incarcerated or strangulated hernia is for the most part a condition readily diagnosed, and easily relieved by operation if it has not been allowed to proceed to the extent of gangrene.

Appendicitis is by all odds the chief cause of inflammation in the abdominal cavity. It occurs in increasing incidence after the age of infancy. In appendicitis the problem of diagnosis becomes important because many pathologic pictures simulate it, such, for example, as pyelitis, pneumonia of the right lower lobe, pleurisy, mesenteric lymphadenitis, primary peritonitis, and ovarian cyst with an associated twisted pedicle. A perforated gut in typhoid fever and a psoas abscess (perhaps secondary to a tuberculous lesion in the spine) also present symptoms of acute abdominal inflammation.

In making a diagnosis of appendicitis the history is of material aid. Other types of infection in the abdomen must, as stated, be considered in differential diagnosis. The physical findings usually present in cases of appendicitis are as

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Dr. Sutton was selected to write an editorial summary on the above topic by a committee of ten leading Ohio pediatricians.

follows: an absence or restriction of abdominal respiratory movements, rigidity of the muscles of the abdominal wall and "point tenderness" over the inflamed appendix. It should always be borne in mind that the appendix is relatively mobile and is often located in an area distant from McBurney's point. "Rebound tenderness", elicited by relief of pressure over the lower left quadrant of the abdomen, produces pain usually in the lower right quadrant at the site of the inflamed appendix. Pain over the region of the appendix is, in my experience, an important sign which is of significance even in the absence of other findings.

Even when the majority of the symptoms and findings described are present, however, there still may be no inflammation of the appendix, and the conditions previously enumerated must be considered in differential diagnosis. Pyelitis may usually be diagnosed if a catheterized specimen of urine reveals the presence of pus cells, especially when they appear in clumps. Rarely appendicitis and pyelitis occur simultaneously; and it must be remembered that an inflamed retrocecal appendix may, by irritation of the ureter, produce a few pus cells in the urine.

Early cases of pneumonia, particularly when the process is localized in the right lower lobe, may give a picture difficult to differentiate from appendicitis. Usually, however, the elevation of temperature in pneumonia is higher than in appendicitis, and the leukocyte count is also higher. Furthermore a pneumonia can often be found by careful physical examination and almost certainly by roentgenographic study. In pneumonia the respiratory rate is accelerated and there may be marked movement of the alae nasi. Cough and "clearing of the throat" should arouse the suspicion of pulmonary involvement. If appendicitis can be diagnosed with reasonable certainty, even the suspicion that either pyelitis or pneumonia is present should not contraindicate operation, since the consequences of rupture of an appendix far outweigh the danger from the administration of an anesthetic to a patient with pyelitis or pneumonia. In fact, there is little apparent influence on the course of these diseases by the operative procedure. An inflamed Meckel's diverticulum may be suspected instead of an appendicitis if the abdominal tenderness is localized at some distance from McBurney's point and if the stools contain blood.

That gall bladder disease is more common in children than sometimes realized, only a few cases have been seen at the Children's Hospital during the past ten years. When stones or empyema do present, the symptoms are not unlike those seen in adults and the method of treatment is practically the same.

In older children as well as in infancy trauma

adds its quota to the incidence of acute surgical conditions in the abdomen. The child may be injured in automobile accidents, falls, sledding, or by blows of one sort or another as in the case which I recently saw in which a child was kicked by a colt and presented a ruptured spleen. In abdominal trauma there will occur pain at the region of the blow, often marked abdominal distention due to the presence of blood in the abdominal cavity, vomiting and difficulty in evacuation of the bowel. The blood count may be of great assistance in intra-abdominal injuries in which bleeding has occurred, since there is practically always a marked anemia. Roentgenographic examination may determine the presence or absence of gas in the free peritoneal cavity, which is secondary to the rupture of a hollow viscus. Rupture of the diaphragm may also be demonstrated by roentgenographic examination. The rupture of a hollow viscus indicates immediate operation to prevent an overwhelming peritonitis; rupture of the spleen indicates its removal.

The character of the pain in intra-abdominal conditions, as determined by the child's reactions, is always to be observed and interpreted in arriving at the proper diagnosis. In true inflammatory intra-abdominal lesions the child usually prefers to be quiet; often lying on one side or the other, with the leg or legs drawn acutely flexed. Straightening the legs often exaggerates the pain. The presence of true muscular spasm or muscular rigidity is of real significance since it is an involuntary mechanism. In the so-called "nervous child" or in one who may for one reason or another be attempting to feign illness, the reaction to palpation is voluntary and is often overdone. Pain due to infection is usually constant and follows a progressive course during several hours of observation. The exception to this generalization is that pain may be temporarily relieved, following the rupture of an inflamed appendix. The recurrence of severe pain with the onset of abscess formation or peritonitis is a well recognized course of events.

Pain due to intestinal obstruction is almost invariably colicky in nature and recurrent in severity. The development of abdominal distention associated with severe vomiting, the latter at first containing only stomach contents or mucus, followed by vomitus containing bile and finally fecal material, makes the diagnosis of intestinal obstruction reasonably certain; but unfortunately indicates a poor prognosis, since such a course of events occurs only when the obstruction has been of considerable duration. The absence of bowel movements or the relief of abdominal distention by enemata often confirms the diagnosis of intestinal obstruction.

Pain associated with a renal or ureteral cal-

culus is often of such severity that the child is extremely restless. Also causing abdominal pain are the rare cases of ovarian cyst twisted on its pedicle. In this condition there is no evidence of inflammatory reaction in the early stages. Occasionally a roentgenogram of the abdomen will reveal the presence of an ovarian cyst, particularly if the tumor mass happens to be a dermoid cyst containing structures which produce definite shadows.

Rectal examination should receive separate discussion. Its value is of such importance that it should be performed much more frequently than is usually the case. Great gentleness must be used, since struggling of the patient prevents the procedure from furnishing reliable information. The presence of an ovarian tumor mass may be determined in a fairly large percentage of cases by rectal examination, as can an inflammatory mass situated in the pelvis or lower part of the abdomen even when it cannot be detected by abdominal examination. The presence of a mass in the rectum itself due to intussusception unfortunately indicates that the diagnosis has been established at a dangerously late period. The failure to palpate a mass does not mean that rectal examination is useless, since at times it reveals the presence of mucus and blood which have not been previously observed. One must be sure that the bleeding discovered is not due to trauma caused by the examination. The importance of the history of the case cannot be too strongly emphasized in differentiating intussusception from gastro-enteritis. In the latter condition, the cramp-like pain, which may be either constant or intermittent, is accompanied by numerous bowel movements which contain mucus, pus and blood.

Auscultation is a valuable aid in the diagnosis of intra-abdominal disorders: the "quiet" abdomen being caused by a paralytic ileus, whereas a mechanical obstruction is accompanied by numerous gurgling or tinkling sounds which help to establish the position of the obstruction as well as the diagnosis of its presence.

Thus intra-abdominal lesions in children present numerous and perplexing problems, almost as numerous in fact as the factors which cause them. I cannot emphasize too much the value of the information obtained by a complete and painstaking history. Careful physical examination is also essential, and there may be brought to bear in differential diagnosis such aids as rectal examination, roentgenographic studies, and examination of the blood and urine. In addition to the discussion of causes and surgical indications, I must emphasize the danger of the administration of cathartics in many of these intra-abdominal disorders.

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Tuberculosis Abstracts

INTESTINAL TUBERCULOSIS

1. A study of 1,043 autopsied cases of tuberculosis is presented with an incidence of 734 cases, or 70.4 per cent intestinal tuberculosis.

The study included all cases of tuberculosis, both pulmonary and extra-pulmonary, which were autopsied during a five-year period, 1934 to 1938.

2. Intestinal tuberculosis is less extensive and less frequent above the age of forty.

The greatest number of cases occurred between the ages of 20 and 39 years—76 per cent in this age group showed intestinal involvement. When cases of intestinal tuberculosis are divided according to the extent of intestinal involvement, it is found that in the older age groups, intestinal tuberculosis when present, tends to be less extensive. The lower incidence and extent of intestinal tuberculosis in the older age group has never been satisfactorily explained.

3. Intestinal tuberculosis is more extensive and frequent in females and in Negroes than in males and whites.

In the material studied, there were about twice as many males as females, and among these the incidence of intestinal tuberculosis was 74.6 per cent in the females and 68.2 per cent in the males.

The incidence in the white race was 66.4 per cent; Negroes 77.3 per cent.

4. Although caseous pneumonic tuberculosis is the type of pulmonary disease most frequently associated with intestinal tuberculosis, the cases with acute miliary tuberculosis showed a surprisingly high incidence of 63.8 per cent intestinal involvement.

Most workers believe that direct contact of the tubercle bacilli in the sputum on the intestinal mucosa is the most important single factor in producing intestinal tuberculosis. A few believe that hematogenous dissemination is the chief method. With that in mind, the cases studied were divided according to the character of their pulmonary disease.

The high incidence in acute miliary tuberculosis seems to indicate that the hematogenous route of intestinal involvement is much more common than generally supposed. One is also led to suspect that the bacilli-laden sputum that is swallowed often only modifies the extent and size of the intestinal ulcers and is not itself the cause of intestinal tuberculosis.

5. The incidence of caseous mesenteric lymph nodes and miliary foci in the liver and spleen increases with the severity of intestinal tuberculosis.

Caseous mesenteric lymph nodes were found in 43 per cent of the very far advanced cases. The high incidence of miliary foci in the liver (49.4 per cent) and spleen (47.8 per cent) is interesting when it is considered that only

routine sections were taken—more careful search would probably have yielded a higher incidence.

6. Intestinal tuberculosis is most frequent in the ileocecal region.

In this series of 734 cases of intestinal tuberculosis the ileum was involved 652 times and the cecum 555 times. Extension of the tuberculous process is more frequently analward than toward the stomach, which was involved in only four cases. The small intestine was involved alone more frequently than the large intestine.

The character of the intestinal lesions varies just as in tuberculosis of other parts of the body. The earliest lesions are in the lymphoid tissue of the submucosa principally in Peyer's patches. The area of caseation finally involves the mucosa and ulceration results. The healing process consists of fibrosis of the specific tubercles followed by epithelial regeneration. The necrotic material sloughs out and the contraction of the fibrous tissue tends to approximate the edges of the ulcer. The uninjured epithelial cells at the border of the ulcer creep in and finally cover the floor of the ulcer.

7. Perforation of a tuberculous ulcer occurred in 28, or 3.81 per cent of the cases with intestinal tuberculosis. It occurred most frequently in the ileum.

Perforation caused a generalized peritonitis in 10 cases, a localized peritonitis in 16 cases. Three perforations were extra peritoneal. Twice, ulcers in the rectum penetrated into the perirectal tissues and once an ulcer in the cecum penetrated retroperitoneally. Perforation occurred most often in the ileum and next more often in the appendix.

8. Generalized tuberculous peritonitis except in those cases due to perforation of a tuberculous ulcer, is not related to intestinal tuberculosis.

Tuberculous peritonitis, not associated with intestinal tuberculosis, occurred in 52 instances.

9. The incidence and severity of intestinal tuberculosis is much less in those cases which have had pulmonary symptoms one to two years.

The frequency of intestinal tuberculosis is related to the duration of the pulmonary disease. The highest incidence of intestinal tuberculosis occurs in cases with pulmonary symptoms of one year to 23 months duration before death. As the duration of pulmonary symptoms increases the incidence and severity of intestinal tuberculosis decreases. Just why cases of long duration should not develop intestinal tuberculosis in spite of persistently positive sputum is not known.

10. The incidence and severity of intestinal tuberculosis is directly related to the positivity of the sputum.

The frequency and severity of intestinal tuberculosis was correlated with the degree of positivity of the sputum. Except for those cases which were positive on concentration only, the incidence and extent of intestinal tuberculosis increases as the number of tubercle bacilli in sputum increases. Cases that had a mean Gaffky count of VII-X had an incidence of 83.5 per cent intestinal involvement. Cases that were negative on concentration had an incidence of 40.4 per cent.

11. The symptoms of intestinal tuberculosis are frequently misleading and are often present in cases without any intestinal involvement.

Symptoms and signs may be bizarre, slight and easily overlooked. Symptoms became more frequent as the severity of intestinal involvement increased.

12. The diagnosis of intestinal tuberculosis based on roentgenograms was inaccurate in 29.2 per cent of the 113 cases studied roentgenographically and at post-mortem.

Another writer found the intestinal X-ray unreliable in 52 per cent of his autopsy series of 67 cases. The autopsy fails to substantiate many cases diagnosed as intestinal tuberculosis on X-ray. It is admitted that pseudo filling defects seen on the X-ray may have been misinterpreted as evidence of organic disease, since fluoroscopy as recommended by Brown and Sampson was not done.

The other factor that accounts for some of the disagreement found between X-ray and autopsy is the fact that an attempt was made to diagnose tuberculosis of the ileum on X-ray. The X-ray criteria of tuberculosis of the ileum—dilatation, segmentation, and stasis, are not as accurate as the criteria for diagnosis in the cecum and colon.—James H. Cullen, M.D., *Quarterly Bulletin of Sea View Hospital*, Vol. V, No. 2, Jan. 1940.

The steps which lead to the establishment of a former tuberculosis patient in a job are extremely important to the patient himself, to his family, to the people with whom he will be working and to the community at large. They are important to the patient because they may determine whether or not he will live. They are important to the patient's family and his future co-workers because, if his disease reactivates, he may infect them. The community is vitally concerned not only from the standpoint of preventing relapses with consequent infection of others, but also from the economic aspect of protecting the thousand or more dollars it has invested in treatment of the patient.—Mrs. Kathryn M. Pearce, Minneapolis, Minnesota.

There is too great a tendency to observe the early lesion in tuberculosis until progression has actually occurred, in which case the maximum opportunity for cure is lost. The purpose of treatment is not only to arrest the peripheral extension of the lesion but also to arrest the process of central caseation. Otherwise, even though temporary arrest may occur later, the central caseous residue constitutes a menace in future years.—J. Burns Amberson, Jr., M.D., *Amer. Student Health Assn.*, Dec., 1939.

A household that has one person ill enough to die from tuberculosis is fertile ground for future cases.—Marian Oakes, *Amer. Jour. of Nursing*, Dec., 1939.

Anemia In a Woman of 65

A Case Record Presenting Clinical Problems

HARRY L. REINHART, M.D.

A SIXTY-SEVEN-YEAR-OLD white female was admitted to the hospital with complaints of "tiredness" and "easy fatigue". The onset of her illness was noted about three years ago at which time she consulted her family physician because of swelling of her feet and legs. She was told that she was anemic and treatment accordingly instituted. During the following year she had a "streptococcus infection" of the intestines. At this time she was hospitalized for 10 days; she had no diarrhea but rather constipation.

Liver extract was first given during the past year, once or twice weekly. Because of the absence of improvement the treatment was increased to daily injections of liver extract with the addition of some form of iron. When no response was obtained, she was given a blood transfusion which likewise was ineffectual, and one month later she was admitted to this hospital. During this period of treatment her appetite was poor and she lost at least 10 pounds of her weight. Although she was ambulatory she fatigued easily, and has been unable to do any work. She has experienced intermittent vertigo, numbness and tingling of fingers and toes, and a constant "hammering sensation" in both ears. Her gums have occasionally been sore, but there is no history of sore tongue or of hemorrhages of any kind.

Previous to the onset of the present illness her general health was good. She has been chronically constipated and during the past 10 years has had nocturia two or three times a night.

Physical examination reveals a well developed and well nourished, white female of stated age in no apparent distress. The skin is pale, warm and moist. The palpebral conjunctivae are pale. Her pupils are round and equal and react to light and accommodation. The eye grounds are not remarkable. The lips are pale and she has complete dentures. The tongue presents no evidence of the smooth atrophy often seen in pernicious anemia. The pharynx is pale. The thyroid is not remarkable and there is no lymphadenopathy on palpation. The breasts and chest are not remarkable. The heart does not appear enlarged to percussion. The heart sounds are faint. There are no thrills or murmurs. Her pulse rate is 92, fair quality, and regular rhythm. The lungs are clear to percussion and auscultation. The abdomen is somewhat obese. No solid organs or masses are palpable. The extremities are negative and reflexes are physiological.

Laboratory Data: The total leucocyte counts varied between 5,600 and 9,400 per cu. mm.; differential counts revealed from 63 to 85 per cent polys, 1 to 2 per cent basophils, 1 to 3 per cent eosinophils, 3 to 21 per cent small lymphocytes.

The total erythrocyte counts ranged from 1,680,000 and 2,190,000 per cu. mm. with from 4.2 to 8.0 per cent reticulocytes. The hemoglobin varied between 4.5 and 5.3 grams and the blood platelets between 400,000 and 1,047,000 per cu. mm. The red blood cells showed marked anisocytosis and poikilocytosis with 3 plus achromia. The cell volume was 19 per cent and the sedimentation rate 0.9 mm. per minute. Bone marrow biopsy revealed a general myeloid hyperplasia with erythroid predominance and a left shift to early erythroblasts. The hematological examinations were interpreted as being compatible with carcinoma of the stomach, but not the picture of pernicious anemia.

Gastric analysis revealed an absence of free HCL, and a total acidity of 45 degrees. Tests for lactic acid and occult blood were positive. Microscopic examination revealed 3 to 5 leucocytes and 15 to 18 erythrocytes per high power field. There were also large motile rods present, and occasional fat globules. The hippuric acid test for liver function showed an excretion of 1.55 grams (normal 3 gms. or more). The urine was acid in reaction, negative for albumin, sugar, acetone, indican and urobilin. The B.U.N. was 18 mgm. per cent. The fasting blood sugar was 97.1 mgm. per cent. The basal metabolic rate was plus 8 per cent.

X-ray examination of the G.I. tract revealed a filling defect of the pylorus, diagnosed as carcinoma. There was no evidence of pathology in the colon.

Course in Hospital: The clinical diagnosis of carcinoma of the stomach was made and exploratory operation indicated. A preoperative transfusion was given. The abdomen was opened and a partial resection of the stomach was done. Another transfusion was begun immediately postoperatively. Her condition became progressively worse and she expired 36 hours later. Terminal temperature was 107°, pulse 160, and respirations 52. The resected tumor of the stomach was diagnosed by the pathologist as "adenocarcinoma, grade III malignancy".

Case Discussion—Dr. Paul C. Foster:

In retrospect a critical evaluation of the data collected in this case presents little, if any definite contraindication to the procedures followed in the attempt to alleviate this patient of her illness by excision of the gastric carcinoma. The available data may be well integrated and explained as part of the picture of gastric carcinoma.

Such additional trauma to the organism as is imposed by surgery must affect every cell with the result that essential equilibria are disturbed. The anesthetic and the trauma of surgery must affect acid base balance, water economy, heat regulations and the other reactions of the body.

This is the forty-ninth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

Although the organism in health is able to buffer great variations, too often the patient on whom surgery must be done is already suffering from changes which have reduced the ability to maintain steady states. Such factors as dehydration, toxemia, malnutrition, anemia, obesity, cardiac, renal or hepatic insufficiency, hyperthyroidism and sepsis may have already rendered the body unable to withstand additional insult.

The surgeon must evaluate the risk his patient takes and weigh this against advantages to be gained. Where the normal equilibria are disturbed the surgeon must adjust these by correct pre-operative management. He must perform his surgery, select his anesthetic and manage the postoperative course so that the organism is disturbed least. After the dictum of Moynihan that surgery has been rendered safe for the patient it is the duty of the surgeon to render the patient safe for surgery.

In the case under discussion we have a patient with carcinoma of the stomach, and therefore, a poor life expectancy. We realize that about 25 per cent of gastric carcinomas are resectable and that 25 per cent of the resected cases survive five years or more. Gastric resection carries a 10 per cent mortality. Weighing these facts, one can only conclude that almost every suitable-risk patient with proven or suspected carcinoma should have surgical exploration. In the present case to be weighed against advantages gainable by surgery are the facts that the patient is 67, obese, anemic and has poor liver function (as indicated by the Hippuric acid test). A preoperative transfusion was given which is all right, but one transfusion probably was entirely inadequate in this case. No attention seems to have been paid to other possible chemical lesions such as disturbed acid base balance.

Surgery was satisfactorily accomplished and the findings at laparotomy were such as to render a favorable prognosis but the patient promptly developed an early hyperpyrexia and died the type of death sometimes called "liver death". While little can be done to avert such deaths, once surgery has been accomplished, more can be done preoperatively to avert this possibility. Our contention that the surgeon must weigh the advantages to be gained from surgery against its risk to the patient leads us to wonder whether operation on the case under discussion was justified until a more complete investigation of the patient's chemical state had been made and measures to correct any disturbed equilibrium instituted.

Dr. Reinhart:

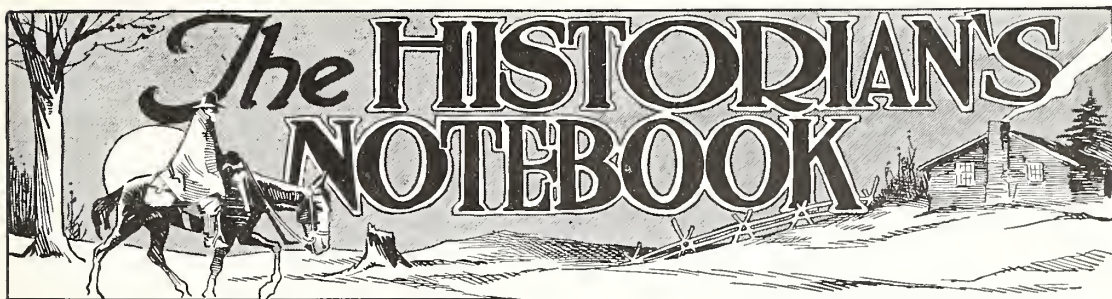
Anatomic diagnosis. Status post gastric resection; acute localized peritonitis; fatty metamorphosis and chronic passive congestion of liver; chronic pleuritis of left pleura; arteriosclerotic kidneys; multiple uterine fibroids.

Although the primary cause of death was gastric carcinoma, the anatomic diagnosis provides little clue as to the immediate cause or causes for the death of this patient within 36 hours of the operation.

This patient was a rather obese elderly white female, known to be anemic for three years, although the cause of the anemia was not discovered, and treated with "liver extract and iron", unsuccessfully as she was still markedly anemic when she was admitted to this hospital. Associated with this anemia was an edema of the feet and ankles, without evidence of "kidney trouble" or "heart disease" and attributed to the anemia. Although her appetite was poor and she has had marked anemia and an "intestinal infection", she has lost only 10 pounds of weight, which suggests the possibility of her actual weight loss being masked by retention of water, in other words edema, possibly of malnutrition.

Laboratory investigations of her anemia suggested its cause to be that of malnutrition probably due to lack of absorption of iron and a mild deficiency of erythrocyte maturation factor. Other dietary insufficiencies were undoubtedly present although not investigated, such as vitamins and lowered serum proteins. Obese individuals are prone to fatty metamorphosis of the liver and particularly on submaintenance diets; and with such a condition glycogen storage in the liver is reduced, liver functions in general are impaired and such individuals are extremely poor operative risks. After a week in the hospital largely devoted to diagnostic investigations, a day or so is devoted to preparation of the patient for operation by a blood transfusion in the hope that it will buffer the patient through this crucial period, for the relief of a condition which has been insidiously developing over a period of months or years. And quite frequently such preparation is attended by successful results. But one or more blood transfusions, although of unquestionable benefit in treatment of anemia and acute serum protein deficiencies are not the entire answer to the treatment or preparation of these malnourished individuals for operation.

The plasma proteins were not investigated in this case. This is an essential laboratory investigation for patients with gastric carcinoma as it provides definite information concerning the state and degree of malnutrition, so common in this condition. Recent experimental investigations demonstrate a markedly lowered resistance of animals to trauma and toxins when maintained on a low protein diet, and poor wound healing is a well known factor in patients on such diets. In general, we may postulate that more careful investigation and treatment of the metabolic status of patients, should materially decrease the operative mortality rate and hasten the post-operative hospital convalescence.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Medical Notes on Knox County*

Part III

Dr. Joseph Gordon, Mt. Vernon, was born in Chester county, Pennsylvania, March 6, 1841. His father, Silas Gordon, is of Scotch extraction and a native of Pennsylvania. He married a Miss Coffman, of the same county. They had a family of ten children. In 1853 Mr. Gordon emigrated to Knox county, Ohio, and located near Mt. Vernon, where they remained some years, and then removed to near Fredericktown.

The subject of this notice spent his youth with his parents on the farm, obtaining his education mostly at the schools of Fredericktown, after which he taught school for several years. In August, 1861, he enlisted in company A, Twentieth regiment, Ohio volunteer infantry, and participated in the battles of Fort Donelson, Shiloh, Corinth, Iuka, Chatahoochie, Savannah, Atlanta, Champion Hills, Marietta, Jonesborough, Kennesaw Mountain, Port Gibson, Jackson, Bolivar, Ackwood, Vicksburgh, Raymond, Black Creek, Grand Junction, Goldsborough, Fayetteville, besides numerous minor engagements. He was discharged in the fall of 1864.

He began reading medicine in the spring of 1865 with Dr. Russell. After his course of reading he graduated at the Jefferson Medical College of Philadelphia in 1868, and remained for a short time in New Jersey. He then came to Mt. Vernon where he began practice, and soon succeeded in building up an excellent reputation. He was president of the Knox County Medical Society and clerk of the board of education. He married Miss Clara L. Corey in 1871. They had three children, Mary P., Lula M. and Stella S.

* * *

Dr. A. J. Hyatt, Jelloway, Brown township, was born in Coshocton County, September 25, 1835. His parents were early settlers there, emigrating from Maryland, where they were born. The subject of this memoir remained at home

until about 18 years of age, when, being the youngest of the family, and allowed his time, he determined to obtain an education. Impressed with this idea, he entered the Martinsburgh Academy, then under the Rev. John Burns. After his limited means were exhausted he began teaching. By doing this during the winter, and by attending school during the summer, he was enabled to complete a thorough course in study. He acquired an excellent reputation as teacher, and was enabled to educate himself entirely by his own efforts.

In 1855 he began the study of medicine with Dr. Isaac Putnam of Mt. Holly. He attended



A. J. Hyatt, M.D.

medical lectures at Ohio Medical College at Cincinnati, during the term of 1857-58. In March, 1859, he began the practice of medicine in Greensville.

In 1861 Dr. Hyatt was married to Miss Cath-

*From History of Knox County, Ohio, 1803-1881; A. A. Graham & Co., Publishers.

arine Smith, of this county. Soon after the doctor sold his practice in Greersville to Dr. Welker, and in 1862 removed to Nashville, Holmes County, where, in September, his wife died. December 3, the same year, he removed to Jelloway, where, for 18 years, he has resided and has enjoyed a good practice.

In 1867 Dr. Hyatt received the honorary degree of M.D. from the Charity Hospital College of Cleveland. In December, 1871, the doctor was again married to Miss Emma J. Gains. They are the parents of three children: John J., Dwight, and Roby, who died at the age of 18 months.

* * *

Dr. Frank C. Larimore,* Mt. Vernon, was born in Columbus, Franklin County, Ohio, April 12, 1846. His father was a merchant and canal contractor. He died when Frank was about ten years of age. He came to Knox County to live with his uncle, Thomas Larimore, of Milford township, who was a prominent man in the county. He went to school in the winter and in summer worked on the farm. In 1861 he enlisted in company G, Twentieth Ohio volunteer infantry. He was wounded at Pittsburgh Landing, April 7, 1862, by a shell, and in consequence of his wound he was discharged in September, 1862. The following spring he went to school at Utica, Licking County, Ohio, and taught school during the winter of 1863-64; during the summer attending school. In the spring of 1864 he enlisted in company B, One Hundred and Forty-second Ohio National Guards, and was appointed third sergeant.

March 20, 1865, he commenced the study of medicine in the office of Drs. Thompson and Smith. He read 18 months and then attended the first course of lectures at Ann Arbor for six months, and then returned to Mt. Vernon and read six months with his old preceptors, Drs. Thompson and Smith. On the death of Dr. Thompson he went to read with Dr. Russell. He then attended his second and last course at Bellevue Hospital Medical College, in which he graduated March, 1869. He commenced practicing in Mt. Vernon and practiced three years. In May, 1872, he went to Europe for the purpose of seeing the hospitals. He visited the hospitals of Dublin and Belfast, Ireland; Glasgow and Edinburgh, Scotland; London, Paris and Berlin. He spent six months in Vienna, Austria, under the instructions of private teachers in medicine and surgery. After leaving Austria he came through Italy, Switzerland, thence to Paris and London, Liverpool, and thence home. He returned to Mt. Vernon after an absence of 13 months, and opened the office he now occupies. He was tendered and accepted

the chair of lecturer of minor surgery in the Columbus Medical College in the fall of 1876. He was promoted to professor of the same subject in 1879, which position he still holds.

Dr. Larimore became a member of the Knox County Medical Society in 1869, and a member of the Ohio State Medical Society in 1870, and a member of the American Medical Association in 1872. During 1877 and 1878 he was president of the Knox County Medical Society—two years.*

He was married to Miss Fanny Odbert, December 30, 1875. They have one child.

* * *

Dr. John Wadhams Russell,* Mt. Vernon, was born in Canaan, Litchfield, Connecticut, June 28, 1804. He was the son of Stephen Russell, a man of influence and character in his time, who was repeatedly chosen to represent the people at the State legislature, and once by a unanimous vote of the district.

The subject of this sketch first attended the district school, and then prepared for college at Morris Academy. Having advanced sufficiently he entered Hamilton College, New York, in 1821. His health soon after failed, and he was advised by physicians to seek a residence, for a time at least, in a milder climate in some southern state. Accordingly he went south, and obtained a situation as teacher in the academy at Red Bank, Colleton district, South Carolina. He became warmly attached to his southern friends, and had, he says, "a noble class of pupils." Dr. Sheridan, he says, "was not only a friend, but a father to him," and by his advice he commenced the study of medicine in 1823.

Dr. Russell returned to Connecticut in 1824, and continued his medical studies under Dr. Alanson Abbe, of Litchfield. Having studied and reviewed the course prescribed by office students, he attended lectures in 1825 and 1826, at Yale College, and then a second course at Berkshire Medical College in 1826. The following winter he went to Philadelphia and became a private pupil of Dr. George McClellan, attending lectures at Jefferson Medical College, Philadelphia, where he graduated in 1827. In April of this year he began practice in partnership with his preceptor in Litchfield, where he continued one year, giving a course of lectures on anatomy and physiology to the medical students, and such members of the law class as wished to attend. Although his prospects were good for gaining a practice in Litchfield, nevertheless, in the spring of 1828, he removed to Sandusky City, Ohio, and in the fall of the same year settled at Mt. Vernon, where he has from that time to the present been actively engaged in the practice of medicine and

*Dr. Larimore, who died April 18, 1930, was president of the Ohio State Medical Association, 1896-1897.

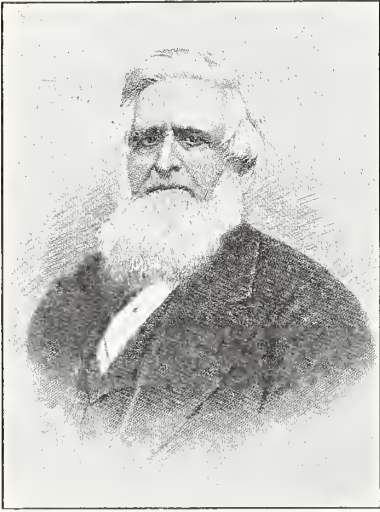
*Dr. Russell, who died March 22, 1887, was vice president of the Ohio State Medical Society in 1848, and was president in 1862.

surgery. In the latter branch he has been remarkably successful, and has performed as many, if not more, capital operations than any inland surgeon in Ohio.

Dr. Russell has frequently operated for stone, and on one occasion upon two patients the same day. For encysted calculus he has performed the high operation with success. During the late war the doctor was one of the examining surgeons for admission of volunteer surgeons into the army, and was chairman of the board.

He was president of the Mt. Vernon bank during its existence, and is now connected with the Phoenix Mining and Mineral Land Company of Colorado.

He has been solicited on several occasions to accept chairs in medical colleges of Ohio, but he



J. W. RUSSELL, M.D.

has devoted his energies to private practice, which has been the favorite pursuit of his life. He has been a member of the medical society of Knox County and also of the Ohio State Medical Society from their organization, and was president of the latter, 1862; of the American Medical Association since 1861, and attended the meeting in San Francisco in 1871, and is an honorary member of the California State Medical Society.

He has been twice married; first, in the spring of 1828, to Eliza, daughter of Hon. William Beebe, of Litchfield, Connecticut. He has two children living—Ann Eliza and William Beebe. His second marriage was in 1872 to Ellen M. Brown, of San Francisco, California.

His daughter, Ann Eliza, now Mrs. William C. Cooper, accompanied him to California to attend the meeting of the American Medical Association in 1871. They both enjoyed the trip, and often refer in terms of fond recollection to the many pleasant incidents of the journey, and the kindness and hospitality experienced from the profes-

sion and the citizens of California. After the adjournment of the association they made excursions to some noted places on the Pacific coast, and stopped three days at Salt Lake City, en route. Mrs. Ellen M. Russell died October 14, 1879.

William B. Russell, Mt. Vernon, oldest son of Dr. J. W. Russell, was born February 23, 1829, in Mt. Vernon, where he received his preparatory education, when he entered Kenyon College, taking a partial course. After leaving school, he accepted a position in the drug store of Buckingham and Company. In 1852 he bought a half interest in the business, and shortly after, bought Mr. Buckingham out, and has been engaged ever since in the business. He carried one of the largest stocks of drugs in the city, and keeps the only place where physicians' wants can be fully supplied. His stock consists of a full line of pure drugs, chemicals, surgical instruments, etc.

* * *

Dr. E. J. Wilson, Mt. Vernon, office over Eagle Drug Store, Main Street, was born near Granville, Licking County, Ohio, on the ninth day of August, 1853, and was educated at Denison University in Granville. On the nineteenth of April, 1875, he commenced the study of medicine with Dr. Larimore, of Mt. Vernon. During the winter of 1877-8 he attended his first term of lectures at the Columbus Medical College, and graduated on the twenty-third day of June, 1879, at the Long Island College Hospital at Brooklyn, New York. He was appointed resident surgeon of the hospital after a competitive examination, which position he filled with much honor to himself, until July 1, 1880, when he returned to Mt. Vernon, and accepted a partnership with his former preceptor, Dr. F. C. Larimore, with whom he is now actively engaged in the practice of his profession.

Pneumoconiosis

Not that it is a new, or even a newly discovered, disease. Pliny recognized it and reported its existence as early as 76 A.D. But workers in heavily dusty trades were few in those days and the first attempt at description came posthumously from the pen of Agricola in 1556. It remained for the machine age, however, and more particularly for modern industrialization, to enter the picture and by producing dusts in previously unheard-of concentration cause a serious hazard to the health of workmen. A growing social consciousness plus the explosive effect of the economic depression with its unemployment focused the attention of both medical and non-medical thought upon this peculiar industrial medical problem.—D. M. Brumfiel, M.D., Saranac Lake, N. Y.; *North Carolina Med. Jour.*, Vol. 1, No. 1, January 1, 1940.

It's Your Annual Meeting—Don't Miss It!

In Addition to a Splendid Scientific Program, There Will Be Loads of Fun and Good Fellowship at the Cincinnati Meeting, May 14-16; Some Special Features Reviewed

CINCINNATI will be the medical capital of Ohio, Tuesday, Wednesday and Thursday, May 14-16, when approximately 1,500 physicians are expected to congregate at the Netherland Plaza Hotel for the Ninety-Fourth Annual Meeting of the Ohio State Medical Association. In addition to important meetings of the House of Delegates and interesting scientific sessions arranged by the Committee on Scientific Work, many special attractions have been provided for the pleasure and entertainment of members and their guests.

Lots of Fun for the Ladies

Wives of physicians who accompanied their husbands to the Annual Meeting in Columbus in 1938 and in Toledo in 1939, will recall the social program which they enjoyed during these sessions. Similar plans have been made by a committee of wives of Cincinnati physicians for the Cincinnati meeting. Women's Registration Headquarters will be located at the Hotel Gibson. Visiting women should register there promptly on arrival.

The Tuesday afternoon program calls for a visit to the Taft Museum at 2 o'clock, followed by a tea at 4:30 o'clock at the Town Club.

On Wednesday morning at 10 o'clock, the organization meeting of the Woman's Auxiliary of the Ohio State Medical Association will be held in the Della Robbia Room of the Hotel Gibson. This will be followed by a luncheon at 12:30 o'clock at the Hotel Gibson, and the second session of the Woman's Auxiliary at 1:30 o'clock. A dinner, with entertainment, will be given at the Hotel Sinton, followed by bridge in the Rookwood Room, on Wednesday evening.

Thursday morning is left open for shopping. On Thursday afternoon, a bus trip is scheduled to the Greenhouses in Eden Park and the Rockwood Pottery, leaving the Hotel Gibson at 2 o'clock. The Annual Banquet of the Ohio State Medical Association will be held at the Netherland Plaza at 7 o'clock, Thursday evening.

Every county medical society in the state has

been invited to designate the wife of a member to represent that society at the First Annual Meeting of the Woman's Auxiliary of the Ohio State Medical Association, the opening session of which, as stated previously, will be held in the Della Robbia Room of the Hotel Gibson, Wednesday morning, May 15. Formation of this organization is in accordance with a resolution adopted by the House of Delegates of the State Association at Toledo last year. A constitution and by-laws will be adopted by the Auxiliary and officers elected. A second session is scheduled for 1:30 o'clock Wednesday afternoon.

Spotlight on Medical Economics

Two general sessions will be devoted to subjects which do not pertain to the scientific side of medicine. They should attract a large attendance. On Tuesday afternoon, from 4 to 5 o'clock, there will be a "Conference on Medical Service Plans" in the Pavillion Caprice of the Netherland Plaza. Dr. J. A. Hanna, managing director of Associated Medical Services, Inc., Toronto, Canada, who has operated a medical service plan successfully for several years, will be the principal speaker. A general discussion will follow his address.

A "Conference on Medical Programs for Recipients of Public Assistance" has been arranged by the State Association's Committee on Poor Relief for Wednesday afternoon, from 4 until 5 o'clock. Dr. Walter K. Stewart, Youngstown, chairman of the committee, will preside. Hon. Charles L. Sherwood, Director of the State Department of Public Welfare, has been invited to speak. All physicians interested in formulating practical programs for the medical care of the poor are strongly urged to participate in this conference which will wind up with a free-for-all discussion by those in attendance.

Tour of Exhibits a "Must" Item

The Exhibit Hall is always an interesting place at any Annual Meeting. This year it should be

(Continued on page 540)

THE complete program for the Ninety-Fourth Annual Meeting of the Ohio State Medical Association, to be held at the Netherland Plaza, Cincinnati, May 14-16, appeared in the April issue of The Ohio State Medical Journal, pages 413-444. See the next page for a summary of the program and meeting.

**HIGH SPOTS OF THE NINETY-FOURTH ANNUAL MEETING, OHIO STATE
MEDICAL ASSOCIATION, TUESDAY, WEDNESDAY, THURSDAY,
MAY 14-16, NETHERLAND PLAZA, CINCINNATI**

TUESDAY, MAY 14

HOUSE OF DELEGATES—Opening session, 1:00 P.M., Pavillon Caprice. Business session and Annual Address of the President, Dr. Parke G. Smith, Cincinnati.

ROUND-TABLE CONFERENCES—2:30 P.M. Ten round-table conferences. Attendance limited to 50. Admission by ticket obtainable at Registration Headquarters.

GENERAL SESSION—4:00 P.M. Pavillon Caprice. Conference on Medical Service Plans; Address by Dr. J. A. Hannah, Managing Director, Associated Medical Services, Inc., Toronto, Canada.

GENERAL SESSION—8:00 P.M. Hall of Mirrors. Speakers: Dr. Richard B. Cattell, Boston, Mass., and Dr. W. Osler Abbott, Philadelphia, Pa.

WEDNESDAY, MAY 15

SCIENTIFIC SECTIONS—9:30 A.M. Section on Surgery, Hall of Mirrors; Section on Pediatrics, Pavillon Caprice; Section on Eye, Ear, Nose and Throat, Parlors A, B, C, D, Fourth Floor.

WOMAN'S AUXILIARY—10:00 A.M. Organization Meeting of Woman's Auxiliary to the Ohio State Medical Association, (Della Robbia Room, Hotel Gibson).

HOUSE OF DELEGATES—12:00 Noon. Luncheon and final session, Pavillon Caprice.

PUBLIC HEALTH ROUND-TABLE LUNCHEON—12:00 Noon. Under auspices of Section on Public Health and Preventive Medicine. Speakers: Dr. Harold J. Knapp, Health Commissioner, Cleveland; Dr. E. P. Edwards, Cleveland; and Mrs. Hazel McIntire, State Department of Education.

WOMAN'S AUXILIARY—1:30 P.M. Final session, Della Robbia Room, Hotel Gibson.

GENERAL SESSION—2:30 P.M. Hall of Mirrors. Speakers: Dr. E. J. Wenaas, Youngstown; Dr. Raymond A. Ramsey, Columbus; Dr. M. A. Blankenhorn, Cincinnati; and Dr. Sidney E. Wolpaw, Cleveland.

GENERAL SESSION—8:00 P.M. Hall of Mirrors. Speakers: Dr. C. Guy Lane, Boston, Mass., and Dr. Ralph R. Mellon, Pittsburgh, Pa.

THURSDAY, MAY 16

SCIENTIFIC SECTIONS—9:30 A.M. Section on Medicine, Hall of Mirrors; Section on Obstetrics and Gynecology, Pavillon Caprice; Section on Nervous and Mental Diseases, Parlors A, B, C, and D, Fourth Floor.

GENERAL SESSION—1:30 P.M. Hall of Mirrors. Speaker: Dr. Ralph M. Waters, Madison, Wis.

ROUND-TABLE CONFERENCES—2:30 P.M. Ten round-table conferences. Attendance limited to 50. Tickets obtainable at Registration Headquarters.

GENERAL SESSION—4:00 P.M. Pavillon Caprice. Conference on Medical Programs for Recipients of Public Assistance. Speaker: Charles L. Sherwood, State Director of Welfare.

ANNUAL BANQUET—7:00 P.M. Hall of Mirrors. Guest speaker, United States Senator Robert A. Taft, Cincinnati.

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Registration Headquarters will be open daily from 8:00 A.M. to 5:30 P.M., and will be located on the Fourth Floor Foyer of the Netherland Plaza.

Educational and Technical Exhibits will be on display from 8:00 A.M. to 7:00 P.M. daily, in the North and South Exhibit Halls, Parlors J and L, and Fourth Floor Foyer.

Women guests should register at the Hotel Gibson on arrival. A special program has been arranged for their entertainment.

A number of luncheons have been arranged by physicians interested in various specialties, including eye, ear, nose and throat; nervous and mental diseases, and allergy. Time and place of these luncheons appear on page 542 of this issue of *The Journal*, and will also appear in the Official Program.

BRING YOUR 1940 MEMBERSHIP CARD. YOU'LL NEED IT TO REGISTER.

**BE SURE TO VOTE IN PRIMARIES BEFORE YOU LEAVE FOR 1940
ANNUAL MEETING, OPENING MAY 14—PRIMARY ELECTION DAY;
INSTRUCTIONS FOR VOTING BY ABSENT VOTER'S BALLOT**

Primary election day in Ohio this year will be May 14 because in presidential election years the second Tuesday in May, instead of the second Tuesday in August, is set by law as the date for the party primaries. The date this year falls on the opening day of the Annual Meeting of the Ohio State Medical Association at Cincinnati. This does not mean that physicians in attendance must forfeit their right to vote. They may vote, and should, under the provisions of the election laws pertaining to absent voters.

Section 4785-134 of the General Code reads as follows:

"Any qualified elector of the state who finds that he will be unavoidably absent from the county on the day of holding any primary, general, or special election, provided, however, that such absence from the county must be at a distance of more than fifty miles from the precinct in which he is a qualified elector, may vote at any such election in the manner as hereinafter provided."

The law provides that any elector referred to above can, not more than 30 days prior to the primary, nor later than 6:30 P.M. of the Thursday preceding the date of the primary, make an application in person or in writing to the clerk of the county board of elections, for an official ballot to be voted at such election. If the elector appears in person at the office of the board, he can fill out the application, obtain the ballots and cast his vote at the time of his appearance. If he makes his request by mail, the ballots will be sent to him by registered mail. After he has marked the ballots, he must return them to the county board of elections by registered mail, in an envelope provided for that purpose. All such envelopes must be in the hands of the clerk of the board not later than 12:00 o'clock noon, Friday, May 10.

especially so, as the educational and technical exhibits will be interspersed. In order to keep the educational exhibits of current practical interest, participation is on invitation by the Committee on Scientific Work. All space available for technical exhibits was sold several months ago. The display of medical books, pharmaceutical supplies and surgical equipment will be outstanding. Physicians who attend the Annual Meeting should plan to tour the Exhibit Hall several times during their stay in Cincinnati.

Chance for All to Speak Up

An opportunity for every physician to "speak his piece" is afforded by the Round-Table Conferences, 10 of which are scheduled for Tuesday afternoon, from 2:30 to 4:00 o'clock and 10 more at the same time on Thursday afternoon. A fine variety of medical and surgical topics is offered for discussion. Leaders have been selected for each of the conferences, but no formal program has been arranged. Attendance will be limited to 50 at each conference. Members are advised to apply for tickets promptly on registration. Not more than one ticket will be issued to an individual member on either day. Tickets will be distributed at a special registration booth opposite the General Registration Headquarters on the Fourth Floor Foyer. After a conference has been

under way for a period of 15 minutes, members not holding tickets or members holding them for some other conference will be admitted to any conference they choose, provided those in attendance at that conference do not exceed 50. Get your Round-Table Conference tickets early. These informal discussion periods promise to be very popular attractions.

We'll Be on the Air, Too!

The public, too, will reap benefits from the program of the Annual Meeting at Cincinnati. Arrangements have been made with production managers of the local radio stations—WLW, WSAI, WKRC, WCKY, and WCPO—to present a number of interesting broadcasts on medicine and health during the three days of the meeting, using some of the essayists and discussants as talent.

Through collaboration between the radio station officials and the Bureau of Public Education these programs are being planned to have the greatest possible public appeal. The participants will engage in dialogue with studio announcers or other physicians on topics in their fields of authority, and informal panel discussions from the exhibit hall itself will be aired. The address of Senator Taft at the Annual Banquet, Thursday

(Continued on page 542)

Menu on Washington Situation Prepared for Banquet Guests

Ohio's junior United States Senator, Hon. Robert A. Taft, Cincinnati, will be the guest speaker at the Annual Banquet, May 16, during the 94th Annual Meeting of the Ohio State Medical Association at Cincinnati. Senator Taft, a candidate for the Republican nomination for President, is a member of the U. S. Senate Committee on Education and Labor to which most of the medical and health proposals pending in the Congress have been referred. Senator Taft's views on such proposals and his observations on the Washington merry-go-round should be of much interest to members of the Ohio State Medical Association.



SENATOR ROBERT A. TAFT



J. A. HANNAH, M.D.

Behind the Scenes of a Successful Group Medical Service Plan

Principal speaker at a "Conference on Medical Service Plans", Tuesday, May 14, 4 P.M., during the 94th Annual Meeting of the Ohio State Medical Association in Cincinnati will be Dr. J. A. Hannah, managing director, Associated Medical Services, Inc., Toronto, Canada. Dr. Hannah was the guiding light in the organization of a group medical service plan for low-wage earners and the needy in the Province of Ontario. The program which he directs has the reputation of being one of the most successful of its kind in the world. His remarks should be of a vital importance to members of the Ohio State Medical Association.

evening, will be broadcast over a nation-wide hook-up. This is the type of medical fare which will be served to radio listeners from Cincinnati, May 14, 15, and 16.

Anesthetists Plan Program

On Thursday, May 16, the Ohio Society of Anesthetists will hold a joint meeting with the American Society of Anesthetists at the Hotel Gibson, Cincinnati. Dr. A. L. Schwartz, Cincinnati, local chairman, has arranged the following program:

9 A.M.—Demonstration of the technique of determination of peripheral blood flow by David Abramson, M.D., and the staff of the May Institute for Medical Research of the Jewish Hospital, Cincinnati; 12 Noon—Luncheon at the Hotel Gibson; 1:30 P.M.—Joint session with the Ohio State Medical Association at the Hotel Netherland Plaza. Address by Ralph M. Waters, M.D., professor of anesthesia, University of Wisconsin Medical School, on "Respiration and the Treatment of Pain"; 2:45 P.M.—Combined Meeting of the Ohio Society of Anesthetists and American Society of Anesthetists at the Hotel Gibson; Business Session; 3 P.M.—"Oxygen Want", by Willard Machle, M.D., Kettering Laboratories; 3:35 P.M.—"Effect of Anesthesia on the Peripheral Blood Flow", David Abramson, M.D., May Institute of Medical Research of the Jewish Hospital, Cincinnati; 4 P.M.—"The Relation of the Respiratory Passages to Anesthesia", Samuel Iglauer, M.D., professor of otolaryngology, University of Cincinnati College of Medicine; 4:25 P.M.—"Experiments in Rebreathing", by Harry Landt, M.D., Cincinnati. Discussion will be opened by Julien E. Benjamin, M.D.; 6:30 P.M.—Informal Dinner, Hotel Gibson; 8:30 P.M.—Ralph M. Waters, M.D., professor of anesthesia, University of Wisconsin, will address the combined societies on a subject to be announced later.

Eat-Listen-Talk Sessions

A number of the scientific sections and specialists' societies will hold luncheon sessions on Wednesday and Thursday.

Officers of the **Section on Public Health and Preventive Medicine** have arranged a luncheon for Wednesday noon, in the Hall of Mirrors Foyer, Third Floor of the Netherland Plaza. Tickets for the Public Health Luncheon will be available at the time of registration. The program follows: "Urban Safeguards Against Milk Borne Diseases", Dr. Harold J. Knapp, health commissioner of Cleveland, with discussion by Dr. F. M. Houghtaling, health commissioner of Sandusky and Erie County; "Pulmonary Tuberculosis Case Finding", Dr. E. P. Edwards, Cleveland, with discussion by Dr. C. L. Hyde, Akron; "Educational Developments Among the Crippled Children, the Hard of

Hearing, and Sight Saving Classes", Mrs. Hazel McIntire, Columbus, Chief of the Division of Special Classes, State Department of Education, with discussion by Walter Underwood, Columbus, secretary of the Ohio Society for Crippled Children.

* * *

The **Section on Nervous and Mental Diseases** will have a luncheon session in one of the private dining rooms of the Netherland Plaza, immediately following its meeting on Thursday morning.

* * *

A round-table luncheon for allergists is scheduled for Wednesday noon, in Parlor G, on the Fourth Floor of the Netherland Plaza. The subject for discussion is "Atopic Ocular Allergy".

* * *

A luncheon session will follow the meeting of the **Section on Eye, Ear, Nose and Throat**, Wednesday morning. Six 10-minute talks have been arranged. They are: "Management of Corneal Ulcers Secondary to Upper Respiratory Infections", Dr. Louis E. Brown, Akron; "Symptoms Referable to the Eustachian Tube", Dr. Edward W. Harris, Columbus; "Newer Concepts in the Treatment of Glaucoma", Dr. L. V. Johnson, Cleveland; "Intracranial Edema Following Occlusion of one Lateral Sinus", Dr. Frank Mayfield, Cincinnati; "The Role of Orthoptics in the Treatment of Phorias and Squint", Dr. Barnet R. Sakler, Cincinnati; "Surgical Treatment of Laryngeal Diphtheria", Dr. John D. Fouts, Dayton. The luncheon will be in Parlors A, B, C, D.

* * *

Luncheon sessions are expected to be adjourned in ample time to permit those who participate to attend the afternoon General Sessions, which begin at 2:30 o'clock on Wednesday and 1:30 o'clock on Thursday.

Some Last-Minute Reminders

Through the courtesy of the Cincinnati Academy of Medicine a special telephone hook-up has been arranged for emergency calls during the Annual Meeting. The telephone number is Parkway-2345. Calls will be received at a telephone and information desk located adjacent to Registration Headquarters at the Netherland Plaza. Leave this number with your secretary before you start for Cincinnati so she can reach you in case of emergency.

* * *

One of the extra-curricular activities of the Annual Meeting is the golf tournament, which is to be held this year at the Kenwood Country Club on Monday, May 13, under the auspices of the Ohio State Medical Golfers' Association—an organization which a physician may join as a life

TICKETS FOR ROUND-TABLE CONFERENCES, A FEATURE OF THE ANNUAL MEETING, MAY 14-16, MAY BE OBTAINED AFTER REGISTERING AT CINCINNATI

WHEN you're in Cincinnati for the Annual Meeting, you'll want to attend one of the Round-Table Conferences, Tuesday afternoon, May 14, and one on Thursday afternoon, May 16. Remember that attendance at these conferences is limited to 50. So that you can take part in the conferences in which you are particularly interested, get your tickets promptly after you register.

Tickets will be available, upon presentation of your 1940 membership card, at a special registration booth opposite the General Registration Headquarters on the Fourth Floor Foyer of the Netherland Plaza.

Members will be limited to one ticket for each day. After a conference has been in session for 15 minutes, members not holding tickets or members holding tickets for some other conference, will be permitted to attend a particular conference, provided those in attendance at that conference do not exceed 50.

A complete list of the conference topics and their leaders was published in the April issue of *The Journal* as part of the Annual Meeting Program.

member by paying a fee of \$2.00. This will be the Golfers Association's twentieth annual tournament. As usual there will be innumerable prizes, including trophies for good golfers and bad ones. Dr. Ralph E. Hatfield is chairman of the Cincinnati committee appointed by the president, Dr. Farrell T. Gallagher, Cleveland, to handle the tournament. George W. Cooley, executive secretary of the Toledo Academy of Medicine, is secretary of the Association.

* * *

Put on your "must list" for the Annual Meeting, a visit to the Ohio State Medical Association's exhibit booth. It will be located on the Fourth Floor Foyer of the Netherland Plaza, just outside the entrance to the Pavillon Caprice, where the House of Delegates will meet and other sessions will be held. The exhibit will depict the Association's many activities in a graphic and interesting way. Don't miss it.

* * *

It isn't too late to write one of Cincinnati's fine hotels for a reservation. Note the list of hotels on page 544, this issue of *The Journal*, and use the attached coupon to mail your request to the manager of the hotel selected. You'll look forward to your trip to Cincinnati with greater anticipation if you know that comfortable hotel accommodations have been reserved for you.

* * *

All women physicians attending the Annual Meeting are invited to a dinner, sponsored by the Cincinnati Medical Women's Club, Wednesday evening, May 15, at 6 o'clock, at the Hotel Sinton. Dr. Dora F. Sonnenday, 145 W. McMillan St., Cincinnati, is in charge of reservations.

Postgraduate Course in Obstetrics

A postgraduate course in obstetrics for physicians, especially general practitioners, is being offered by the University of Chicago and the Chicago Lying-in Hospital, in cooperation with the Illinois State Department of Health and the Children's Bureau, United States Department of Labor. The course is to run from five to six weeks. The cost to physicians will be for board and room, personal incidental expenses and a nominal fee of \$15. The number accepted will be limited in order that a personal relationship may be maintained between the staff and the physicians. All of the members of the University's Department of Obstetrics and Gynecology will participate in the program. Applications and inquiries should be addressed to: Postgraduate Course, Department of Obstetrics and Gynecology, 5848 Drexel Ave., Chicago, Ill.

Toledo Academy Plans Series of Public Medical Lectures

The Toledo Academy of Medicine will present a series of Sunday afternoon public lectures during the Summer on various phases of medicine. Arranged by the Academy's Speakers Bureau and Dr. Paul Hohly, the meetings will be held in the Little Theatre of the Toledo Zoological Gardens. The tentative program follows:

- June 2—"Hay Fever", Dr. Karl D. Figley.
- June 16—"Tuberculosis", Dr. Paul M. Holmes.
- June 30—"Appendicitis", Dr. Fred M. Douglass.
- July 14—"Pneumonia", Dr. Foster Myers.
- August 28—"Malignancy", Dr. E. J. McCormick.
- September 1—"Syphilis", Dr. Lawrence D. Miller.

Last Call for Hotel Reservations for the 94th Annual Meeting, Cincinnati, May 14-16; Make Your Choice Now

AN important item in preparing for attendance at the Ninety-Fourth Annual Meeting of the Ohio State Medical Association, at the Netherland Plaza, Cincinnati, Tuesday, Wednesday and Thursday, May 14-16, is making arrangements for hotel accommodations. Cincinnati has a number of beautifully-appointed hotels with all the facilities that insure the comfort of their guests. Scan the accompanying list of hotels, select the one where you wish to stay, and send in your request for reservations, without further delay.

Headquarters for the Annual Meeting will be at the Netherland Plaza. Physicians who attended the Eighty-Ninth Annual Meeting there in 1935 will recall it is close to the ideal for such meetings. All of the general sessions, meetings of scientific sections and the House of Delegates and the round-table conferences will be held there. Meetings of the Woman's Auxiliary will take place at the Hotel Gibson.

Requests for hotel reservations should be addressed directly to the management of the hotel selected.

Following is a list of Cincinnati hotels, their locations and room rates:

NETHERLAND PLAZA (Headquarters Hotel). Fifth and Race Sts. Single, \$3.00-\$10.00; double, \$5.00 to \$30.00.

HOTEL GIBSON, Fifth and Walnut Sts. Single, \$2.50-\$5.00; double, \$4.00-\$7.00; parlors, \$12.00.

HOTEL SINTON, Fourth and Vine Sts. Single, \$2.50-\$5.00; double, \$4.00-\$6.00; suites, \$6.00-\$10.00.

HOTEL ALMS, McMillan and Victory Parkway. Single, \$3.50 and up; double, \$5.00 and up.

HOTEL BROADWAY, Fourth and Broadway. Single, \$2.50 and up; double, \$3.50 and up.

HOTEL FOUNTAIN SQUARE, Fifth and Vine Sts. Single, \$2.50-\$3.00; double, \$3.50-\$4.00.

HOTEL KEMPER LANE, Kemper Lane and McMillan Sts. Single, \$2.50 and up; double, \$4.00 and up.

MARIEMONT INN, Wooster Pike and Madisonville Road. Single, \$1.75 and up; double, \$3.00 and up.

METROPOLE HOTEL, 609 Walnut St. Single, \$2.25-\$3.50; double, \$4.00-\$5.00.

PALACE HOTEL, Sixth and Vine Sts. Single, \$1.50-\$3.50; double, \$2.50-\$5.00.

HOTEL PARKVIEW, 108 Garfield Place. Single, \$2.50 and up; double, \$3.50 and up.

VERNON MANOR HOTEL, Oak and Burnet Avenues. Single, \$2.50 and up; double, \$3.50 and up.

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager.....Hotel, Cincinnati, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, May 14-16, 1940, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price:

☐ Twin Bed Room with bath ☐ Suite

Arriving May.....at.....A.M.....P.M.

PLEASE VERIFY MY RESERVATION.

Name.....

Address.....

Need for Enabling Legislation in Ohio Stressed at District Conferences on Medical Service Plans

APPROXIMATELY 250 county society officers, legislative committeemen and State Association delegates, representing well over three-fourths of the county medical societies of the state, have had an opportunity to acquaint themselves with the work of the Committee on Medical Service Plans of the Ohio State Medical Association through the series of conferences held in all Councilor Districts during the past month and a half.

Conferences were held in 11 cities with the following Councilors and members of the Committee on Medical Service Plans in charge:

First District—Cincinnati; Councilor Schriver; Committeeman Tucker.

Second District—Dayton; Councilor Hogue; Committeeman Woodhouse.

Third District—Findlay; Councilor Klotz; Dr. A. A. Brindley, representing Dr. Fred Douglass, Toledo, committeeman.

Fourth District—Toledo; Councilor McCormick; Committeeman Douglass.

Fifth District—Painesville; Councilor McNamee; Committeeman Rauschkolb.

Sixth District—Alliance; Councilor Rutledge; Committeeman Allison.

Seventh District—Cadiz; Councilor Goehring; Committeeman Allison.

Eighth District—Zanesville; Councilor Swan; Committeeman Damron.

Ninth District—Jackson; Councilor Seiler; Committeeman Allard.

Tenth District—Columbus; Councilor Sherburne; Committeeman Forman.

Eleventh District—Mansfield; Councilor Burley; Executive Secretary Nelson, substituting for Committeeman Damron because of the latter's illness.

Those who attended these conferences on invitation of The Council because of their official positions in their respective medical societies, were requested to return to their society and present to their fellow-members the questions discussed at the district conference.

CONFERENCES SUCCESSFUL

Reports on the district conferences were made by members of the Committee on Medical Service Plans at a meeting of the committee in Columbus on Sunday, April 14. It was the consensus of members of the committee that the conferences had been beneficial and that the purposes for holding them had been achieved, namely: education of representative members of the county medical societies about the need for medical service plans in some parts of Ohio and why

enabling legislation to provide a legal foundation for such plans is necessary.

Members of the committee reported that there was overwhelming sentiment among those attending the 11 conferences in favor of the Ohio State Medical Association sponsoring an enabling act at the next (1941) regular session of the Ohio General Assembly. A majority of the conferences adopted resolutions advocating the introduction of enabling legislation; the others did not take formal action but most of those attending were in favor of such a proposal.

In their reports, members of the committee stated that they had confined their remarks at the district meeting largely to the question of enabling legislation, since that is the immediate question before the membership of the State Medical Association.

SOME VITAL POINTS

Points emphasized by committee members included the following:

1. There are several metropolitan communities in Ohio where there is a need for the inauguration of group medical service plans for low-wage earners and where the local medical society or academy of medicine is anxious and ready to organize and operate such a plan.

2. Those local medical societies are not able to carry out their plans unless they organize a mutual insurance company, which is not practical because of the financing required, or until special legislation (enabling act) is passed to give medical service plans a sound legal basis.

3. There are other communities in the state where medical service plans are not needed at this time. Nevertheless, medical societies in these communities would be confronted with the same legal problems should they at some future date desire to start a plan.

4. Therefore, the entire medical profession—all county medical societies—should be interested in this question and should actively support legislation which would permit any local medical society to organize an agency to operate a medical service plan when and if the society cares to do so.

ACT WOULD BE PERMISSIVE

5. An enabling act would be entirely a permissive, not compulsory or mandatory, measure. It would be comparable to laws authorizing the formation of corporations, insurance companies, financial institutions, etc. These laws do not compel anyone to form such organizations but merely set forth how they may be organized.

6. An enabling act would merely contain gen-

eral provisions governing the organization of an agency to administer a medical service plan. The act would not set up a medical service plan and would not compel any county medical society to do so. It would carry no provisions relating to the premiums, administration, coverage, fees, etc., of a medical service plan. Such matters would be left to the discretion of a medical society when and if it should decide to form a medical service agency.

7. On the other hand, the enabling act would place control of such plans in the hands of the medical profession, with some supervisory authority with respect to premium reserves and filing of financial statements, etc., vested in the Superintendent of Insurance for the protection of the subscribers—the public.

OTHER STATES HAVE ACT

8. In states where the medical profession has inaugurated medical service plans, enabling legislation was obtained. If it was deemed desirable in those states, it would be advisable for Ohio to follow the same procedure.

9. There is no medical service plan before the membership of the State Association at this time for consideration. Passage of enabling legislation is the first step—a necessary step—before the question of plans can be considered. Even after enabling legislation is obtained, no county medical society will be obligated to start a plan. However, should it decide to do so, it will have discretionary power relative to the details and provisions of the plan.

The committee at its meeting on April 14 drafted a report for submission to The Council prior to the opening of the 94th Annual Meeting in Cincinnati, May 14-16, so that The Council will have opportunity to refer the question of enabling legislation to the House of Delegates for consideration and action.

Members of the committee were requested by the chairman, Dr. Tucker, to attend and take part in the "Conference on Medical Service Plans" scheduled for Tuesday, May 14, in the Pavillon Caprice, Netherland Plaza Hotel, Cincinnati, at 4 P.M. when Dr. J. A. Hannah, managing director of Associated Medical Services, Inc., Toronto, Canada, will speak after which there will be an informal general discussion.

Open New Offices

Physicians who have recently opened offices in Ohio include the following: Dr. Edward B. Weinman, Steubenville; Dr. C. W. McGuire, Bellevue; Dr. Paul N. Ivins, Hamilton; Dr. Hugh S. Elliott, Jackson Center; Dr. Michael E. Cristo, Niles; Dr. Robert C. Hahn, Elyria; Dr. Arthur F. Lippert, Pleasant Plain; Dr. Raymond L. Shilling, Ashland; Dr. V. J. Murray, Glandorf; Dr. Robert W. Pocotte, Toledo.

Industrial Commission Adopts New Rules Governing Hospitals, Nurses

Effective April 1, the State Industrial Commission, by resolution, has abolished the 15 per cent reduction, in effect since January 1, 1935, on hospital bills for injured workmen receiving more than 21 days hospitalization.

The resolution also provided that "in all industrial cases committed to the hospitals of Ohio for treatment, a history of said case shall be furnished forthwith to the Supervisor of the Medical Department of the Industrial Commission".

Attending physicians in all Industrial Commission cases must secure written authorization from the Commission for the employment of nurses after the first seven days of disability before fees for services of such nurse will be recognized beyond the first seven days of disability, the Commission ordered, adding that the term "nurse" shall mean and include graduate nurses licensed by the State of Ohio. Fees for nursing services in hernia cases shall be paid only when specifically authorized. The fee schedule for nursing services was set at \$5.00 for an eight-hour day, and \$6.00 for a ten to twelve-hour day. In all cases where a nurse is caring for more than one Industrial Commission patient, the fee schedule is to increase \$1.00 for each additional patient.

Included in the resolution was the Commission's approval of regulations governing the submission of X-ray films which were issued by the Medical Department, effective May 1, 1937. (March, 1937, issue *The Ohio State Medical Journal*, pages 323-324).

Hearing on Osteopathic Case Delayed

The suit of Clarence D. Kester, Darke County osteopath, asking the Ohio Supreme Court to issue a writ of mandamus compelling the Darke County Board of Elections to accept his declaration of candidacy for the office of county coroner and place his name on the Democratic ballot in the primary May 14, was heard by the Supreme Court on April 16. The court's decision had not been announced up to the time this issue went to press.

Attorney General Herbert's opinion (No. 1918), holding that an osteopath is not a "licensed physician" within the meaning of the code governing qualifications for the office of coroner, was the authority used by the Darke County Board of Elections in refusing Kester a place on the ballot. The opinion was published in full in the April issue of *The Journal*, pages 456-458.

Don't Forget To Renew Your Narcotic License by July 1!

Some Important Reminders Regarding the Regulations

EVERY physician wishing to prescribe or dispense narcotic drugs must register with the Collector of Internal Revenue of his district and pay the Federal Narcotic Tax of \$1.00 on or before July 1 annually. Initial application may be made at any time, but existing permits must be renewed annually on or before July 1.

Application for re-registration must be made on Form 678, with the physician's signature either acknowledged by two witnesses, or sworn to by a notary public or an official of the internal revenue department. The number of the physician's license to practice medicine in Ohio must be noted on this form. The registration number assigned by the Department of Internal Revenue is retained from year to year.

MUST SUBMIT INVENTORY

The application must be accompanied by an inventory, on Form 713, of the narcotic drugs on hand in the physician's office. This inventory, in affidavit form, must be sworn to by a notary public or an official of the internal revenue department.

During the last week of May copies of these forms will be mailed to each Ohio physician already registered, with brief instructions covering the procedure to be followed in applying for a renewal of his license.

Failure to comply with these regulations and pay the required tax of \$1.00 on or before July 1 adds a penalty of 25 per cent to the tax when it is paid. A record is kept by the department of internal revenue of physicians who are late in re-registering.

PENALTY FOR DELAY

A physician who registers tardily, and who has prescribed or dispensed narcotic drugs during the interval within which his registration has lapsed, is liable to a fine of not more than \$2,000 or imprisonment for not more than five years or both. Some years ago several Ohio physicians were fined substantial amounts for delinquencies in paying narcotic taxes over a period of years.

Physicians who administer, dispense or prescribe cannabis, must obtain a special permit and re-register annually on or before July 1, with the district collector of internal revenue, and pay a tax of \$1.00.

Conviction of a violation of the Harrison Narcotic Act or the State Uniform Drug Act subjects a physician to suspension or revocation of his license to practice medicine and surgery by the State Medical Board.

A copy of Regulations No. 5, relative to procedure under the Harrison Narcotic Law can be obtained by writing any district Collector of Internal Revenue. Each physician should assiduously observe the following important points which are covered in detail in the regulations:

SOME IMPORTANT POINTS

1. Re-register annually on or before July 1.
2. If you move your office, notify the internal revenue collector immediately.
3. Don't try to buy narcotic drugs on your own prescription. Use an official order form.
4. When you need a narcotic order book, send the requisition (Form 679) with ten cents, to the district internal revenue office.
5. Your narcotic order form will be filled by a wholesale dealer, except one ounce or less of aqueous or oleaginous solutions of 20 per cent or less, which will be filled by a retailer.
6. Show your registry number on prescriptions for narcotic drugs.
7. If you maintain two offices, each must be registered.
8. If you intend to discontinue your registry, notify the collector in ample time to receive and execute instructions prior to June 30.
9. Don't fail to re-register on time each year. A delinquency record may eventually embarrass you.
10. Report stolen narcotics immediately to the Narcotic Agent in your district.
11. Death of any registrant should be reported at once to the collector. Instructions will be given as to disposal of narcotics on hand.

BE SURE TO KEEP RECORDS

It is highly important that a physician keep an accurate record of all narcotic drugs dispensed. The record should show the kind and quantity of narcotic drugs or preparations dispensed, the name and address of the patient, and the date of dispensing. Entries should be made on the day when the drugs are dispensed. The record should be kept for not less than two years from the date of dispensing.

While the Harrison Narcotic Act does not require a practitioner to keep a record of his prescriptions for narcotic drugs, unless his office system provides for such a record in his ordinary clinical records, it would be well for him to keep one.

Important Revisions in Some of Its Regulations Made by State Medical Board at Meeting in Columbus, April 2

MID SUMMER examinations of the State Medical Board will be held at Columbus, Monday through Thursday, June 3-6, the Board decided at a meeting in Columbus, April 2.

A number of important matters were acted upon by the Board at its April 2 meeting. These included:

Amendment of the rules governing the practice of chiropody to forbid the use of X-ray and radium for therapeutic purposes.

Adoption of questions to be asked applicants for licenses to practice medicine and surgery in the June examinations.

Acceptance, with regret, of the resignation of Louise Schroeder, R.N., as a member of the nurses' examining committee, because of her removal to New Rochelle, N. Y., to become superintendent of a nurses' training school.

Appointment of Helen Shank, R.N., Columbus, to serve the remainder of Miss Schroeder's term on the committee—until July 1, 1941.

Adoption of a resolution forbidding the presence on the examination floor during examinations of anyone save the examiner and his assistants.

Adoption of a resolution to the effect that all applicants for entrance into examinations must complete the application form which requires the signature of the dean of the school of graduation, and that the seal of the school must be affixed to the application form.

SEVERAL DISCIPLINED

The Board revoked the certificate of Jacob H. Farrand, Columbus, chiropractor and mechano-therapist, for violation of the rules, regulations and statutory provisions governing limited practitioners and for engaging in the practice of medicine and surgery.

Dr. E. N. Huggins, Columbus, was placed on probation, following an investigation by the Board of his circularization of advertising literature to physicians and optometrists promoting the sale of tablets for the treatment of cataract.

LICENSED THROUGH RECIPROCITY

Licenses to practice medicine and surgery in Ohio were granted the following physicians through reciprocity with other states:

Robert H. Akers, Stoutsville, University of Louisville; James D. Apple, Dayton, St. Louis University; Benjamin Caplan, Toledo, University of Toronto; Lorand J. B. Gluzek, Cleveland, Hungarian Royal University; William T. Gordon, Cincinnati, St. Louis University; Maurice E. Green, Cincinnati, Boston University; Leonard

J. Haas, Cleveland, St. Louis University; Harold E. Harris, Cleveland, University of Iowa; John M. Hoyt, Columbus, University of Geneva; Benjamin J. Kaufman, Carrollton, University of Geneva; Robert P. Meader, Cleveland, University of Michigan; Frank L. Meany, Cleveland, St. Louis University; Sanford Press, Cleveland, Wayne University; Jay P. Roller, Pemberville, University of Louisville; Albert B. Sabin, Cincinnati, New York University; John V. Sullivan, Cleveland, Yale University; Everett R. Veits, Ironton, University of Louisville; Robert H. Wahl, Dayton, St. Louis University; Gregory J. Nordenbrock, Dayton, Washington University.

The meeting was attended by all members of the Board and Dr. H. M. Platter, Columbus, secretary. Members of the Board are: Dr. J. H. J. Upham, Columbus, president; Dr. Roy C. Hunter, Wapakoneta, vice-president; Dr. William M. Hoyt, Hillsboro, treasurer; Dr. C. W. Waggoner, Toledo; Dr. Thos. H. George, Cleveland; Dr. Claude V. Davis, Pennsville, and Dr. Ralph B. Taylor, Columbus.

Dr. Ralph B. Taylor Is Appointed to State Medical Board

Dr. Ralph B. Taylor, Columbus, has been appointed to the State Medical Board by Governor John W. Bricker, for a seven-year term, ending March 18, 1947. Dr. Taylor succeeds Dr. L. T. Franklin, Chillicothe.

A native of Columbus, Dr. Taylor attended the local public schools and received an A.B. degree from Ohio State University in 1895. He graduated from Eclectic Medical College, Cincinnati, in 1898, and has since been in active practice in Columbus, where he is a member of the staff of Grant Hospital. Dr. Taylor was President of the Ohio State Eclectic Medical Association in 1931. He is a member of that Association, the Columbus Academy of Medicine, Ohio State Medical Association and the American Medical Association.

Veteran Staff Members Honored

Members of the staff of St. Elizabeth's Hospital, Dayton, who have retired from active service and those who have served on the staff for 25 years were guests of honor at a testimonial dinner recently given at the hospital. Speakers included Dr. S. H. Ashmun, chief of staff. Those on the honor roll are: Dr. G. A. Hochwalt, Dr. J. W. Millette, Dr. W. H. Delseamp, Dr. S. E. Hendren, Dr. C. D. Smith, Dr. Curtiss Ginn, Dr. O. B. Kneisley, Dr. A. W. Carley, Dr. W. G. Clagett, Dr. R. S. Binkley and Dr. J. K. Larkin.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

For a number of years the only complaint which has been voiced about the Annual Meeting program has been a feeling on the part of a substantial group of mem-

Don't Miss These

Two Sessions on

Medical Economics

bers that the program has been restricted too much to scientific subjects, with little or no time allotted for discussions of some of the social, economic and governmental phases of medicine by those attending the meeting unless they happened to be members of the House of Delegates.

In an effort to correct this situation, the Committee on Scientific Work, with the approval of The Council, in arranging the program for the 1940 Annual Meeting at Cincinnati, May 14-16, scheduled two general sessions which will be devoted entirely to discussions of two subjects in the field of medical economics.

On Tuesday afternoon, May 14, at 4 o'clock, a "Conference on Medical Service Plans" will be held in the Pavillon Caprice, Netherland Plaza Hotel. As guest speaker, the State Association has been fortunate in being able to obtain Dr. J. A. Hannah, managing director of Associated Medical Services, Inc., Toronto, Canada, where a most successful program of group medical service has been carried on for several years. There will be ample time for a round-table discussion and questions and answers following Dr. Hannah's talk. The program for this session has been arranged by the Committee on Medical Service Plans of the State Association.

On Thursday afternoon, May 16, at 4 o'clock, a "Conference on Medical Programs for Recipients of Public Assistance" will be held in the Pavillon Caprice. The program for this session has been arranged by the Committee on Poor Relief of the State Association. Principal speaker will be Hon. Charles L. Sherwood, State Director of Public Welfare. A round-table discussion and question-answer period will follow his address.

Here are two opportunities for all members to take part in discussions on two important and lively subjects—questions which affect the business side of the practice of medicine, as well as the professional side. These sessions are not intended primarily for officers and committeemen of county medical societies but for all members. Of course, any officer or committeeman who does not take advantage of these two opportunities to hear and take part in discussions of medical

service plans and medical relief will be overlooking a splendid bet.

The Committee on Scientific Work is to be congratulated on its good judgment in arranging for two such sessions. Frankly, they are experiments. Unless the members respond by attending them and by participating in the informal discussions, there will be little incentive for the committee to schedule similar sessions at future Annual Meetings.

In a final bulletin issued by the New York State Medical Society following recent adjournment of the New York General Assembly, there were listed 82 proposals in which the medical society was interested. Many of them were crack-pots. Ohio may not be New York but here is ample reason why every county medical society needs an alert legislative committee to work with a similar committee of the state society.

For the information of the membership, we would like to call attention to a press release issued on March 22 by the Bureau of Public

Cabot Charges Are Refuted in Release Issued By Bureau

Information of the State Association which was published in a considerable number of Ohio newspapers. The release was an answer prepared by Dr. Parke G. Smith, the President, to certain charges made in an article in the *American Magazine* by Dr. Hugh Cabot, Boston, and publicized by press-agents for the magazine.

There are three points of interest in this particular piece of work on the part of the Bureau of Public Information. First, the statement prepared by Dr. Smith splendidly refutes certain charges made by Dr. Cabot and points out certain misstatements which he made in his article. Second, we have another example that the Bureau is on the job and functioning as the membership expects it to function. Third, there is evidence that newspapers will publish "news". Dr. Smith's statement was news because it was constructive, reviewing certain activities being sponsored by the medical profession in Ohio to refute the Cabot misstatements. On the other hand, we find that some newspapers did not use the release, indicating perhaps that the proper relationship with the press has not been established by the medical profession of some communities. Future

success of the Bureau may depend on correction of this situation where needed.

The statement prepared by Dr. Smith and released under a Columbus date line through the Bureau, read as follows:

"Ohio physicians can disprove charges which Dr. Hugh Cabot, Boston surgeon, makes against his own profession in an article by him which appears in the current issue of *The American Magazine* and which has been widely publicized in newspapers throughout the state, it was asserted here today by Dr. Parke G. Smith, President of the Ohio State Medical Association.

"'Dr. Cabot indicts the medical profession for opposing plans for budgeting the costs of medical care on a prepayment basis,' Dr. Smith said, 'and in doing so he blandly ignores the fact that state and local medical organizations, in Ohio and elsewhere, not only do not oppose such plans but are actually taking the initiative in establishing them.'

"'Here in Ohio two committees of our State Medical Association are now occupied in a study of various forms of group medical service and are taking preliminary steps to determine the intricate economic and legal factors involved in setting up one or more voluntary plans,' he continued. 'Furthermore, in several large Ohio cities the local academies of medicine have drawn up such plans for low-wage earners and are awaiting the establishment of a sound legal basis on which to found them.'

"Referring to Dr. Cabot's assertion that prepayment groups for medical services 'are fighting for their lives against the hostility of established medical societies,' the state association president branded it as 'sheer nonsense.' 'If this is true,' he asked, 'how does Dr. Cabot explain the activities of many city and state medical organizations which have inaugurated, or soon will inaugurate, systems of budgeted, prepaid medical service?'

"Dr. Smith pointed out that the Ohio medical profession does not object to the principle of prepayment for physicians' services as Dr. Cabot charges. 'We differ with Dr. Cabot,' he said, 'only on the basis on which prepayment group plans are organized. It certainly does not matter how the services are paid for as long as both the doctor and patient are satisfied.'

"'We endorse group medical care plans,' he continued, 'if they do not interfere with the patient's liberty to select his own doctor or in any other way jeopardize the quality of medical care rendered. We feel that these plans should be organized under the auspices of the medical profession itself so that the need of interjecting a commercial or third-party interest between physician and patient is eliminated.'

"'Dr. Cabot, on the other hand, advocates small groups or cliques of physicians who set themselves up to treat the ills of a large number of patients on a mass scale. If this kind of practice were widespread, it would place very restrictive limits on the number of physicians to whom a patient could go and would prevent the member of such a plan from having access to the services of all the physicians in his community.'

"'There is plenty of other evidence,' Dr. Smith added, 'to refute the notion that the medical profession is indifferent to current social problems.

For example, Ohio's physicians, through their county medical societies, are constantly working in collaboration with relief authorities to insure adequate health protection for the indigent.'

"'We've worked out satisfactory medical relief programs in most of Ohio's counties, under the provisions of which the poor of the state are supplied with necessary care. Does this seem like indifference on the part of the doctors?'

"'It is certainly to be regretted,' the state medical leader concluded, 'that Dr. Cabot has chosen to set himself up as judge of his profession and, in doing so, has revealed his woeful lack of information.'

The presidency of the modern, hyper-active state medical society long since has ceased to be just an honor; it has come to be a job and a man-sized job at that.—The Journal of the Indiana State Medical Association.

Probably no term has been more confusing to the general public and has been put to greater misuse by many than the term "socialized medicine". Everybody and his brother nowadays seems to be talking about socialized medicine but few have anything but a hazy idea as to the meaning of the term. Obviously, this is not unusual, for as one writer has pointed out "the term is almost perfectly indefinite".

One of the standard tricks of the advocates of new-fangled social philosophies is to accuse the medical profession of being unalterably opposed to "socialized medicine" and then to point to the great good which has been accomplished by certain medical and health programs which are nothing more or less than community projects carried on in a collective manner, i.e., socialized undertakings. By pulling this old gag, the medical profession's critics attempt to belittle the profession and to leave the inference that it stands in the path of progress.

Socialized health and medical activities have been with us for years. Work of our health departments and institutionalized care of the handicapped and disabled are examples of community endeavors financed from public funds—socialized medical and health programs. To say that the medical profession has opposed such activities is to reveal astounding ignorance of the facts. On the other hand, the medical profession is the daddy of such activities.

In order to keep the record straight, the medical profession should try to set the public right on its use of terms. Let's make it perfectly clear that the profession does not oppose "socialized medicine" *per se* but does oppose schemes and systems aptly described by *The Journal of the A.M.A.* as "politicalized medicine" or "state-managed" medicine. Also, let's not forget the

terms "tax-supported medical service" and "compulsory sickness insurance". When giving the public the facts, let's be careful to accurately define the issues and the real questions under discussion.

I think you will agree after studying the map that no one community is inaccessible to hospitals in Ohio.—Dr. R. H. Markwith, Ohio director of health, in communication placed into the record at hearings on S. 3230, the Federal Hospital Building Program proposal.

In the April issue of *The Modern Hospital* appeared the following paragraph under the heading, "A Disappointing Decision": "Hospital care insurance for the employees of the American Medical Association has just been arranged through one of the large life insurance companies. This action will come as a distinct disappointment to the hospital field and, no doubt, as a surprise to the rank and file of the medical profession, which has been led to believe that the officials of the association are supporting and encouraging the development of nonprofit hospital plans."

A Disappointing Attitude,

In Our Opinion

In our opinion this is one of the silliest comments we have read in a long time. We realize that *The Modern Hospital* does not speak officially for the hospitals. On the other hand it is an excellent publication and undoubtedly has a large following. We hope that its readers will not let themselves be fooled by the fallacious reasoning of the above statement.

To say that because a medical society decides to deal with an old-line insurance company instead of a voluntary nonprofit hospital service association in providing hospital coverage for its employees, it condemns the idea of nonprofit hospital service plans, is drawing a conclusion which is unfair and unsound.

Supporters of hospital service plans are treading on thin ice if they expect to win public support through a sentimental appeal. Such plans have their place and are meeting a real need and demand. On the other hand, the field of hospital insurance has become highly competitive. Those offering hospital coverage must expect competition. The public is going to purchase coverage from the company, whether of the profit or nonprofit variety, which offers the most benefits for the amount of premium an individual can afford to pay. In the final analysis, hospitals should not be greatly concerned about where an individual purchases his hospital insurance. The chief worry of the average hospital is how to collect for its services. Nonprofit hospital service plans were started in an effort to solve that problem. The hospital's bread is buttered regardless of whether

a person subscribes for nonprofit hospital service coverage or whether he buys hospital insurance with a commercial insurance carrier.

Another point to be considered is the fact that group hospital service plans vary. There are good ones and those, by comparison, not so good. Here again competition enters the picture.

Nonprofit hospital service plans will have to stand on their own feet; meet competition squarely; stand or fall by what they have to offer and how efficiently they are operated.

Of course, members of the medical profession are anxious to see the hospitals succeed with their nonprofit service plans. On the other hand, the medical profession recognizes the obvious fact that such plans do not have exclusive rights in the field of hospital insurance. In the end, the public will buy what it can afford and will benefit through honest competition on the part of reputable organizations.

Medicine is advancing so rapidly, the literature is piling up with such disturbing speed, that only by intense application can a medical man keep in step with medical progress.—David Riesman, M.D.

To those who will attend the Ninety-Third Annual Meeting, May 14-16, in Cincinnati, we recommend especially that they participate in the Round-Table Conferences, arranged for Tuesday and Thursday afternoons, May 14 and 16.

Round-Tables Are Sessions Where All May Participate

These informal discussion groups were so popular among those who attended the 1939 meeting at Toledo, that the Committee on Scientific Work has expanded this feature for the 1940 meeting, arranging for 20 such conferences instead of 12.

A diversified program of subjects has been planned so that each member will be able to find several subjects of special interest to him. Admission to the conferences will be by ticket only—obtainable after the member registers for the meeting. It has been necessary to limit the number in attendance at each conference to 50. Tickets will be issued on a first-come, first-served basis.

May we emphasize that the Round-Table Conferences will be conducted in a strictly informal manner. Leaders have been selected in order to keep the conferences moving and to stimulate discussion. However, the plan is for the discussion to be carried on primarily by those in attendance. Undoubtedly, experts on the various subjects will be present to take part in the discussions and to answer questions. There will be no formal lectures. All in attendance will have an

opportunity to express their opinions, describe their experiences and ask questions.

In our opinion, the member who fails to take advantage of this valuable and popular feature of the Cincinnati meeting will be missing one of the most helpful phases of the whole session.

Whether or not we choose to be "rugged individualists" our growing and utter dependence on the complicated and intricate machinery of organized effort is inevitable.—C. E. Hufford, M.D., President, The Toledo Academy of Medicine.

Among the mass of proposals pending in the United States Congress is one (H.R. 8963) which would permit chiropractors to treat beneficiaries

of the United States Employees' Compensation Act. That it should be promptly killed and that physicians should so advise their congressmen are statements which should need little emphasis.

Congress Asked To Put Its Blessing On Chiropractors

The U. S. Employees' Compensation Act is similar to the Workmen's Compensation Acts of the various states, providing compensation and medical attention for employes of the Federal Government who are disabled as a result of, or in connection with, their employment. Also, the same act sets up the administrative procedure for the compensation and medical program covering W.P.A. workers.

For more than 20 years, this act has been ably administered by the U. S. Employees' Compensation Commission. An excellent medical care program for Federal employes, and during recent years for W.P.A. workers, has been established under the careful supervision of the commission. This splendid program would be diluted to a shameful degree should H.R. 8963 be enacted, permitting chiropractors to participate in it. Beneficiaries of the compensation act would suffer, of course, through the lowering of the standards of the medical program.

That the standards would be lowered to a startling degree is the only conclusion which can be reached. For example, chiropractors in Ohio are greatly restricted in their practice. Because of their inferior education and training, this is proper. The Ohio law provides that chiropractors cannot treat infectious, contagious and venereal diseases; cannot practice obstetrics and surgery; cannot use or prescribe drugs; cannot sign death and birth certificates. These limitations were placed on such practitioners by the Legislature to protect the public. Certainly it would be a mistake to open up the U. S. Employees' Compensation Act to practitioners whose qualifications are so meager that high legal barriers have to be

placed around them to safeguard the public health.

An administration which has been so vocal in urging improvements in the health of the people as the present one at Washington surely will not stand by while H.R. 8963 is being considered without registering an emphatic protest. We will be greatly disappointed if any of Ohio's congressmen supports it.

In these days when political parties are in search of platform planks we suggest this one—security of economic conditions so that the nation's empty cradles may again be filled.—Howard Dittrick, M.D., editor-in-chief, The Bulletin of The Academy of Medicine of Cleveland.

The Ohio Chamber of Commerce has filed a vigorous protest against the enactment of the Federal Stream Pollution Control Bill, as amended, which is pending in the present Congress.

Sometimes the Remedy Can Be Worse Than the Ailment

An amendment inserted in the proposal provides that no new source of pollution may be discharged into the navigable waters of the United States and streams tributary thereto until and unless approved by the Division of Water Pollution Control of the U. S. Public Health Service.

According to the Ohio Chamber of Commerce the proposal as amended would be administered to stifle certain industries and would establish both Federal and state control which would be undesirable. It was pointed out that "Ohio is a leader in coping with the problem of stream pollution. Progress made since 1905 has been remarkable and since 1935 has been nothing less than phenomenal. All of this has been accomplished under the intelligent guidance and direction of the State Department of Health of Ohio. We must not have duplicate authority and control—state and Federal."

We do not intend to argue the pros and cons of stream pollution. So far as the medical profession and the Ohio State Medical Association are concerned there is no argument. Stream pollution must be controlled. Pollution of streams, regardless of the source, is a definite menace to the health of Ohio's citizens. Physicians would be shirking their obligation to society if they did not actively support proper steps to meet this problem.

However, there are right and wrong ways of handling every problem. A question as vital as that of stream pollution must be met in a sound manner. For that reason the point raised by the Ohio Chamber of Commerce should not be dis-

regarded. The argument, if any, is not over the necessity for prevention of stream pollution but with respect to methods of administration and regulation.

It's another situation which involves the question of whether Ohio wants Washington to run Ohio's affairs or whether Ohio would prefer to run its own. There is evidence in some of the so-called grants-in-aid health programs that Washington is not backward about taking the driver's seat—in fact insists on having it. Maybe stream pollution control is different, but we doubt it.

It has long been recognized that one of the greatest evils of a government bureaucracy is its tendency to perpetuate and expand its power.—Senator Burke, Nebraska.

On April 5 Cleveland newspapers announced that plans have been completed for a program which will carry up-to-date health information to the

A School Health Program Which Is Loaded With Merit

school children of Cleveland. Briefly, the plan provides for a course of instruction for teachers and children on the latest developments in various fields of medicine. Some of the subjects suggested are personal hygiene, physiology, anatomy, respiratory diseases, digestive disturbances, disturbances common to the eye, ear, nose and throat, common skin disorders, simple orthopedic troubles, social diseases and dental health.

It was especially gratifying to learn that the program is being sponsored jointly by the Cleveland Academy of Medicine and the Cleveland Board of Education. Members of the academy will present the lectures.

Both agencies are to be congratulated for having worked out the proper approach to a big question. Too often health education is neglected by the public schools. Frequently what instruction is given is presented by those who are not properly qualified to speak with authority. In some places cooperation between school authorities and the medical profession is lacking. Occasionally, a medical society, when given an opportunity to assume leadership, lets someone else steal the ball while it wastes time checking and re-checking the signals.

What is going to be done in Cleveland can be done in every community. Youngsters should not be made the victims of neglect in this important field of education while their elders fall asleep at the switch or bicker about details. Each county medical society or academy in Ohio would be doing the public as well as the profession a real favor if it would make a project like the Cleveland program a "must" item on its schedule of activities for the immediate future.

As provided in the Constitution and By-Laws of the State Association, the House of Delegates is the legislative and policy-making body of the Association. Composed of

House of Delegates Sessions Are Open To All Members

representatives of all the component county medical societies, it is thoroughly democratic in character and is vested with far-reaching authority. Through its activities and decisions the medical profession of Ohio is able to express itself on questions bearing on the relationship between the profession and the public and on matters, which for lack of a better definition, might be termed, the business aspects of medical practice.

The opening session of the 1940 Annual Meeting in Cincinnati, May 14-16, will be the first session of the House of Delegates, scheduled for 1 P.M., Tuesday, May 14. In our opinion, it is obligatory on the part of each county medical society to have a duly accredited delegate present at that session and also at the second session which will be held Wednesday noon, May 15.

Moreover, we recommend that as many members as possible should attend the sessions of the House of Delegates as observers. Sessions of the House of Delegates are not closed meetings. The more members who attend these business sessions, the more widespread will be the understanding within the profession of some of the important questions confronting all physicians. It will be an educational experience for those who can attend.

Meeting of Public Health Officials

The Annual Convention of the Ohio Federation of Public Health Officials will be held at the Deshler-Wallick Hotel, Columbus, Friday, May 24. Three sectional meetings are planned, with Dr. J. A. Carter, Batavia, in charge of the program for health commissioners; Mary Breneman, R.N., Marion, the nursing section, and Willis Aukland, Delaware, the sanitarian's section. Officers of the Federation are: Dr. H. H. Pansing, Dayton, president; Dr. Edward H. Schoenling, Cincinnati, vice-president, and Dr. W. D. Bishop, secretary-treasurer.

Heart Association Meeting

The Sixteenth Scientific Session of the American Heart Association, Inc., will be held at the Hotel Roosevelt, New York City, June 7-8. The general cardiac program will be given on Friday, June 7, and the program of the Section for the Study of Peripheral Circulation on Saturday, June 8. Additional information can be obtained by addressing the association at 50 West 50th St., New York City.

Bureau Organized by Columbus Physicians is Helping Them to Meet Financial Problems; How it Operates

RECENTLY approximately 150 Columbus physicians and dentists enjoyed a complimentary dinner at the Fort Hayes Hotel to celebrate the fifth anniversary of the Columbus Bureau of Medical Economics.

Reports presented at that meeting indicated that the Columbus Bureau of Medical Economics has become an agency which is successfully serving the business and financial interests of many Columbus physicians and dentists and is increasing goodwill for them by the helpful services being rendered the public.

Believing that an outline of this Columbus experiment, showing the growth, development and operations of the bureau, may be of interest to members of the State Association in communities where there is no similar bureau, *The Journal* presents this article without any thought of advocating the Columbus plan as a "model" plan, for in the end a service of this character must be adapted to the particular requirements in each locality.

COOPERATIVE ENDEAVOR

The "Medical Bureau", as it is usually referred to, is recognized by many Columbus members of both professions as a practical demonstration of cooperative endeavor in centralized control and management of the common business problems relating to the practice of medicine and dentistry.

Early in 1934 a small group of physicians began the study of ways and means to overcome some of the acute financial problems facing the professional man in the post-depression period. A committee of the Academy of Medicine, headed by the late Dr. E. F. McCampbell, investigated the operations of several medical business bureaus in other cities. The committee decided that a central business service, under the direct supervision and control of members of the profession, should be undertaken in Columbus. A plan of operations was submitted to Academy members and endorsed as an experiment that should be given a trial. The Columbus Dental Society also gave its endorsement to the project.

The Columbus Bureau, based on the scope of its operations, the success attained in the various fields of its services, and its constantly growing list of members, rates among the most successful attempts of this character anywhere in the country. Certain distinctive features of the Columbus plan are reputed to account for the satisfactory development and growth of the organization. Some of these are unique and seem to

characterize the Columbus program as different from most similar attempts.

SEPARATE ORGANIZATION

The Bureau is not a part of either the Academy of Medicine or the Dental Society. It is a separate organization, incorporated as a non-profit enterprise under the laws of Ohio. Its membership, however, is restricted to members of the two scientific groups. It is controlled by a board of 14 trustees, 12 of whom are elected by the Bureau membership, the other two being the presidents of the Academy and the Dental Society, respectively, who serve ex-officio. Officers are chosen by the board from its own members, who have full responsibility for the Bureau's operation.

Membership dues are \$2.00 per month, with an entrance or enrollment fee originally of \$10.00, now reduced to \$5.00. Hospitals are admitted as associate members, with same dues and fees as for active members. Supplementing the basic membership dues additional supporting revenue is received from special commissions and fees for the special services used, such as collections, call service, budget loans, professional management, etc. Only physicians, dentists and hospitals who are members of the Bureau can use its services. This provision is an essential feature of the Columbus plan.

HAS FULL-TIME EXECUTIVE

Actual management and direction of the Bureau are in the hands of an executive director who is hired by and is responsible to the board of trustees. The Columbus plan accords wide latitude to this individual. The success or failure of the program in no small measure rests with the director. This new cooperative agency was pioneered and developed to become a recognized success in five years under the management of the same executive director—Mr. Stanley R. Mauck. From two employees on February 1, 1935, the payroll has grown to 24. Offices are being expanded for the second time within a year, the total space occupied in the Hartman Theatre Building now being approximately 2500 sq. ft. The operating budget for 1940 is set up for more than \$50,000. Six main trunk telephone lines are required to handle work of the different departments.

The committee's investigations indicated that Bureaus in other cities were organized and functioned primarily as collection services. Frequently, some local collection agency was given the society's stamp of approval and allowed to

operate as an official collection service for the doctors, possibly with some supervision by a special committee of the scientific body. In other instances, the society itself would sponsor an organization which was designed to handle the doctors' collections under ethical control and with economy and reliability not always found in private commercial collection agencies. Bureaus so organized and operated found ample justification in the results attained in various cities and led the Bureau of Medical Economics of the American Medical Association, in a special report, to make the observation that "the steady increase in the number of credit and collection bureaus organized under professional control seems to indicate a growing recognition of their value". The Columbus plan, however, visualized a much larger field of service and included collections merely as one of several functions which would be undertaken.

HAS MEMBERSHIP DUES

But, if the Bureau was to be anything more than a collection service the committee agreed that the financial support could not be dependent solely upon the commissions earned on collections. It seemed characteristic of other Bureaus that their operations were limited almost entirely to collections when all their income was from that source.

Taking a tip, therefore, from the Youngstown Bureau, which antedated the Columbus experiment about one year, the membership dues and the enrollment fee were made the basic principle of the financial support. The enrollment fees provided the initial working capital for the purchase of necessary office furniture and equipment and the monthly dues enabled the project to be launched without being altogether dependent upon the results of the collection department each month.

Almost from the start the Bureau has been self-sustaining. Neither of the parent scientific societies has put up a dime to support the new organization. The aim has been to keep income and expenses on a balanced basis, without striving for an impressive surplus each year. As the Bureau has grown and developed it has been the policy of the trustees to reduce the fees and commissions charged for the various special services or to use any surplus income to further expand the scope of operations in the interest of all members.

In addition to collections, other functions of the Bureau include a central credit exchange, a 24-hour physicians' registry or call service, a professional budget service for the financing of doctor and hospital bills, purchasing of office supplies, centralized bookkeeping and a confidential professional management service that assumes full direction and control of the doctors'

financial and office problems, including his accounts receivable.

SOME IMPORTANT SERVICES

The scale on which some of the Bureau departments are now operating is indicated by the estimate of a \$100,000 volume in Professional Budget Service Loans in 1940. The Collection Department will return another \$75,000 to Bureau members, based on the average monthly volume at the end of last year. One hundred and twenty-one physicians are enrolled for the Call Service, by which they are able at all times to keep in touch with patients who are not able to contact them at office or home. This service, of course, keeps the Bureau office open 24 hours daily for 365 days of each year, and ADams 8101 has become the clearing house of information for the city on all matters medical. It is a service that builds public goodwill and gives identity to the Academy of Medicine as official sponsor of this cooperative endeavor.

The budget service, also, is regarded by the public as a helpful arrangement and may be said to represent a step in the direction of a better adjustment of medical and dental care for the lower income brackets of society. However, it is by no means restricted to the marginal income group and many patients, among all classes, are glad to take advantage of this convenient plan to have their doctor bills paid promptly and at the same time be accorded the privilege of liquidating a sizeable obligation by small monthly installments out of income. This is not a service for the unemployed or those receiving the benefit of public subsistence. It is for those who have regular jobs and claim to be self-supporting in every other field of their economic endeavor—for those who are able to do so and should pay for normal health care when a plan is available on much more reasonable terms than usually apply for the many less essential installment purchases made by these same patients. The carrying charge to the patient, or interest rate, is a straight 6% per annum, with the contract usually extending over twelve months. The doctor receives his check immediately, 94 cents on each \$1.00—a cash transaction without recourse liability of any kind. There are no bad debt losses or slow pay transactions on accounts financed through the Bureau. The Professional Budget Service of the Columbus plan is solving the financial problem for both patient and doctor in a growing number of cases, and this department is now performing one of the most valuable functions of the Bureau.

PUBLIC RELATIONS

In addition to these special services, the Bureau program emphasizes the constructive character of its work with its members and also the educa-

tional factor in striving to create a new sense of public responsibility towards doctor bills. It is a slogan of the Bureau that it is more interested in helping its members "prevent" bad accounts than it is in collecting them. Various ingenious aids to collecting in the doctor's own offices are furnished, such as the "member" stickers for use on statements, final notice cards, the pre-collection letters, budget service literature, etc. The public is kept informed about the Bureau through the bronze membership plaques displayed in members' offices, the insignia on statements, publicity articles in newspapers, etc. The existence of the Bureau's credit exchange has a stimulating effect upon the patients' paying habits. Supplementing its own clearing house for reports on professional delinquencies, the Bureau relays all accounts placed for collection to the two established commercial credit bureaus. Thus, unpaid medical and dental bills become a matter of record for retail credit ratings also, and the knowledge of this credit angle has a wholesome effect upon the public's attitude toward professional accounts.

The two-dollars monthly dues enable the Bureau to develop these indirect benefits and extend its usefulness far beyond the collection feature. Also, with this assured income from the dues, collection rates have been set to average approximately 10% below commercial agencies, and the charge for other special services, such as the 24-hour call service and the budget discount to members, are materially lower than competitive commercial services of a similar nature.

The monthly charge for the call service, for instance, is only \$2.00, including the special listing line, "If no answer, call ADams 8101", in the telephone directory. A private competitive service charges \$4.50. The discount to the doctor for cash payment on accounts handled under the budget service is only 6%. An independent finance company, specializing on professional accounts, discounts the doctors 10% and charges the patient an interest rate of 8.4% per annum as against the Bureau's straight 6%. No charge at all is made to the members for credit information furnished from the Bureau's own files, which now contain over 100,000 names. A bad paying experience with other doctors has frequently been very valuable as a guide to some member who took the trouble to check the Bureau for a possible slant about one of his slow accounts. Without the basic membership dues the credit service would have to be curtailed, as would also much of the preventive program to reduce delinquent accounts, together with the educational program that aims to lessen the abuse of the medical and dental credit privilege; and higher fees for the special services of collections, call service, etc., would have to be charged. While it costs \$24.00 per year to be a member of the Columbus Bureau, this distinctive

feature has enabled it to become much more than a mere collection agency—it is a dignified, representative service in the broad field of the business side of medical and dental practice.

SERVICES TO ACADEMY

An interesting by-product of the Bureau is the direct service the agency has rendered the Academy of Medicine. Until the Bureau was established, the Academy had never maintained a permanent headquarters, nor an executive secretary, because these facilities could not be financed without a material increase in Academy dues. Both are now provided by the Bureau, with the director functioning also as the official secretary of the Academy. A monthly bulletin was started in behalf of the Academy, published by the Bureau and managed by the executive director, and from the advertising revenue, together with only \$1.00 allotted from the dues of each Academy member, the latter body now enjoys the complete facilities of a headquarters and office staff, an executive secretary and an outstanding official monthly publication. This close and helpful co-operation between the Academy and its business adjunct is again one of the distinctive features of the Columbus program. It may contain food for thought for other county medical societies which might wish to consider ways and means to improve their facilities, in behalf of both their scientific and business interests.

Officers of the Bureau for 1940 are Harry E. LeFever, M.D., president; E. N. Hoopman, D.D.S., vice-president; J. H. Mitchell, M.D., secretary-treasurer, and Mr. Mauck, executive director.

Plan Monument for Pioneer Physician

A memorial to Dr. John Hole, Revolutionary War surgeon and pioneer physician of the Miami Valley, who died in 1813, will be formally dedicated at Centerville, Montgomery County, Friday, June 7. Dr. Ben R. McClellan, Xenia, President of the Ohio State Medical Association in 1906, headed a committee of physicians which raised the funds to purchase a pink granite monument which will be erected close to the roadside near the north corporate limits of Centerville. Joining in the movement were the medical societies in Greene, Clinton, Butler, Preble, Clark, Miami, Darke, Champaign and Warren counties.

Cleveland—New staff officers of St. John's Hospital are: Dr. C. L. McDonald, chief; Dr. George P. O'Malley, director of surgery; Dr. C. E. Steyer, chief of medicine; Dr. R. J. Schraff, secretary; Dr. C. A. O'Connell, vice-chief; Dr. J. T. Collings and Dr. J. V. Heimann, members of the executive board.

Hospital Facilities Increased in 1939, Recent Report of A.M.A. Shows; Mass of Interesting Data Recorded

THE Nineteenth Annual Presentation of Hospital Data by the Council on Medical Education and Hospitals of the American Medical Association published in the March 30 issue of *The Journal of the A.M.A.*, makes available a wealth of information concerning the number and location of hospitals in the United States, and the character of service which they rendered in 1939.

The report lists 6,226 registered hospitals and sanatoriums in the United States. Of these, 1,022 are approved for internships, residencies and fellowships. Registered hospitals approved by the American College of Surgeons number 2,354. The total number of registered hospitals in 1939 was 60 more than in 1938. In addition, 119 new hospitals were opened during the year and their registry is pending; 58 are under construction and 158 are being planned. Registration was refused 548 hospitals, after investigation, these having a bed capacity of 17,049.

FIGURES ON OWNERSHIP

Of the 6,226 registered hospitals, 1,740 are governmental with a bed capacity of 845,146. These include hospitals operated by the Federal, state, county and city governments. Non-profit organizations operate 2,840 hospitals, with 293,505 beds, and 1,646 hospitals with 56,375 beds are in the proprietary class—owned by individuals, partnerships or profit corporations.

The number of patients admitted to registered hospitals in 1939 totaled 9,879,244, which does not include 1,099,713 babies born in hospitals. The increase of admissions over 1938 was 458,169. One person every 3.2 seconds is the rate at which patients entered hospitals during 1939. The average census of patients was 996,483.

INCREASE IN BEDS

Beds available in registered hospitals now number 1,195,026, an increase of 33,646 since the Council's 1938 report. The average number of idle beds throughout the year was 198,543, as compared with 195,674 in 1938. General hospitals were occupied to 69.2 per cent of their capacity as compared with 68.9 per cent the preceding year. The average number of idle beds in general hospitals in 1939 was 136,956. In 1938 it was 132,454. The report points out that the capacity of registered hospitals has practically doubled since 1918 and has trebled since 1909.

A table showing the number of general hospital beds in each state per 1,000 of population reveals that Mississippi and Arkansas have the least hospital facilities, 1.6 beds per 1,000. The District of Columbia tops the list with 9.7 beds

per 1,000, many of which, however, serve not only the District but federal employees throughout the country. The figure for Ohio is 2.9.

MORE BIRTHS IN HOSPITALS

Births in registered hospitals in 1939 numbered 1,099,713, the largest ever reported, and representing nearly 50 per cent of all births in this country. The number of hospital births has practically doubled during the last 10 years.

Hospitals, sanatoriums and related institutions in Ohio registered by the Council on Medical Education and Hospitals of the A.M.A., in 1939 numbered 250, two less than the previous year.

OHIO STATISTICS

Hospital facilities of the state classified according to control are: Federal, 7; state, 22; county, 23; city, 21; church, 44; fraternal, 4; non-profit corporations and associations, 94; individual and partnerships, 19; profit corporations, 16.

Ohio hospitals are classified as to types of service as follows: General, 155; nervous and mental, 28; tuberculosis, 21; maternity, 9; industrial, 1; eye, ear, nose and throat, 1; children's, 4; orthopedic, 3; isolation, 2; convalescent and rest, 5; hospital departments of institutions, 20; all other hospitals, 1.

Bed capacity of registered hospitals in Ohio during 1939 was 54,731, and 2,679 bassinets, compared with 54,302 beds and 2,616 bassinets in 1938. Patients admitted increased from 446,591 in 1938 to 477,927 in 1939. Average daily census in 1939 was 47,020, as compared with 46,883 the previous year. The percentage of beds occupied in general hospitals increased from 69.8 to 71.2.

Of the 155 general hospitals in Ohio, 148 furnished the Council on Medical Education and Hospitals with information requested regarding anesthesia service. This was part of a nationwide investigation undertaken by the Council at the request of the American Board of Anesthesiology. The report reveals that 78 of the general hospitals in Ohio reporting, have an M.D., in charge of the anesthesia department; that anesthesia is administered by nurses in 50 hospitals; by interns, 32; by residents, 33; by M.D. specialists in anesthesia, 52; by other physicians, 108.

OHIO HOSPITALS ON APPROVED LIST

The following Ohio hospitals, numbering 43, are approved for internship: City, Peoples and St. Thomas Hospitals, Akron; Aultman and Mercy Hospitals, Canton; Bethesda, Christ, Cincinnati General, Deaconess, Good Samaritan,

Jewish and St. Mary Hospitals, Cincinnati; City, Fairview Park, Lutheran, Mt. Sinai, St. Alexis, St. John's, St. Luke's, St. Vincent's Charity, Woman's, and University Hospitals, Cleveland; Grant, Mt. Carmel, St. Francis, Starling Loving University and White Cross Hospitals, Columbus; Huron Road Hospital, East Cleveland; Good Samaritan, Miami Valley and St. Elizabeth Hospitals, Dayton; Mercy Hospital, Hamilton; Memorial and St. Rita's Hospitals, Lima; City Hospital, Springfield; Flower, Lucas County, Mercy, St. Vincent's, Toledo, and Woman's and Children's Hospitals, Toledo; Youngstown and St. Elizabeth's Hospitals, Youngstown.

Hospitals in Ohio approved for residencies in specialties number 35. They are: Children's, City and St. Thomas Hospitals, Akron; Mercy Hospital, Canton; Christ, Children's, Cincinnati General, Deaconess, Good Samaritan, Hamilton County Tuberculosis, Jewish, Longview State Hospitals, Cincinnati; City, Cleveland Clinic Foundation, Glenville, Mt. Sinai, St. Alexis, St. Ann's Maternity, St. John's, St. Luke's, St. Vincent's Charity, and University Hospitals, Cleveland; Children's, Columbus State, Starling Loving University Hospitals, and Franklin County Sanatorium, Columbus; Miami Valley Hospital, Dayton; Huron Road Hospital, East Cleveland; General Hospital, Mansfield; Toledo State and Lucas County General Hospitals, Toledo; Cleveland Tuberculosis Sanatorium, Warrensville; Harding Sanitarium, Worthington, and St. Elizabeth's and Youngstown Hospitals, Youngstown.

Ohio schools for clinical laboratory technicians approved by the Council are: City Hospital, Akron; Institute of Pathology, Western Reserve University, (University Hospitals), Cleveland; Mt. Sinai Hospital, Cleveland; Starling Loving University Hospital and White Cross Hospital, Columbus; Huron Road Hospital, East Cleveland; College of Mount St. Joseph-on-the-Ohio, Mount St. Joseph; Toledo Hospital, Toledo; and Youngstown Hospital, Youngstown.

Hotel Reservations for A.M.A. Session in New York Should be Made Now

Physicians who are planning to attend the New York session of the American Medical Association, June 10-14, are advised to make arrangements promptly for hotel accommodations. A list of New York hotels and their room rates appeared on page 41 of the advertising section of the March 2 issue of *The Journal of the A.M.A.* Meeting places at the session appeared on page 809 of the same issue. Requests for hotel reservations should be addressed to Dr. Peter Irving, chairman of the Subcommittee on Hotels of the Local Committee on Arrangements, Room 1036, 233 Broadway, New York City.

Movement to Coordinate All Health Agencies in Cleveland Launched

Public and private health agencies in Cleveland and Cuyahoga County have joined forces in a program of action designed to improve and coordinate health service in that community. Known as "The Advisory Committee on Health and Hospitals in Greater Cleveland", the committee is headed by Mayor Harold H. Burton; James A. Reynolds, president of the Board of County Commissioners, and Dr. Robert H. Bishop, Jr., director of University Hospitals, with Edward D. Lynde, executive secretary of the Welfare Federation of Cleveland, as secretary. Under the general directing body, the committee was subdivided into a committee on health and a committee on hospitals.

The committee on health will: (1) Make a community-wide study of public and private health services in Greater Cleveland and of the laws relating to them; (2) recommend such revisions of the law and practice and such redistribution of responsibilities, as will end wasteful duplication, fix responsibility, simplify procedure and otherwise minimize the cost of and improve health service; (3) develop a five-year (or longer) program of public health service with special emphasis on disease prevention and health education, this to include recommended means of financing the program.

The committee on hospitals will do the same for those institutions laying special emphasis on the provision of adequate facilities in a community which is making more and more use of its hospitals.

Heading the committee on health is Howard Whipple Green, executive secretary of the Cleveland Health Council. He will be assisted by City Health Commissioner, Dr. Harold J. Knapp; Dr. Charles F. Good, directing supervisor of medical inspection for the Cleveland Board of Education; Dr. Richard A. Bolt, director of the Child Health Association; Miss Elizabeth C. Folekemer, director of the Visiting Nurse Association; Dr. A. J. Pearce, county health commissioner, and H. Van Y. Caldwell, executive secretary of the Cleveland Academy of Medicine.

Heading the committee on hospitals will be Guy J. Clark, executive secretary of the Cleveland Hospital Council; George P. Bugbee, superintendent of City Hospital; Miss Virginia R. Wing, secretary of the Anti-Tuberculosis League, and County Relief Director Bell Greve.

General consultant and ex-officio member of each committee will be Dr. J. A. Doull, professor of public health and hygiene at Western Reserve University. Consultant on professional relations and ex-officio member of each committee will be Dr. L. F. Hoffman, chairman of the public health committee of the Cleveland Academy of Medicine.

Do You Know - - -

During the Postcollegiate Assembly of the Ohio State University College of Medicine held at Columbus, March 29-30, attended by over 200 physicians, the following officers of the Medical Alumni Association were elected for the ensuing year: Dr. Nial L. Burrell, Springfield, president; Dr. Robert C. Austin, Dayton, first vice-president; Dr. Wm. M. Skipp, Youngstown, second vice-president; Dr. Russel G. Means, Columbus, secretary-treasurer.

* * *

Cleveland's maternal mortality rate reached the lowest level in the city's history during 1939 with 2.67 deaths for every 1,000 live births recorded, Dr. Richard A. Bolt, director of the Cleveland Child Health Association revealed in his annual report.

* * *

Dr. Mont R. Reid, Cincinnati, recently turned down an offer to become professor of surgery at Johns Hopkins University School of Medicine, and will continue as Christian R. Holmes professor of surgery at the University of Cincinnati College of Medicine.

* * *

Dr. Edward J. McCormick, Toledo, Councilor for the Fourth District of the Ohio State Medical Association, was one of the guest speakers at the Seventy-Second Annual Meeting of the Nebraska State Medical Association, held at Omaha, April 22-25. Dr. McCormick discussed "Present Social Trends and the Future of Medicine", at an evening session.

* * *

According to the *Statistical Bulletin* of the Metropolitan Life Insurance Company, in the United States during the years 1934 to 1937, every day 285 people, on the average, died as the result of accidental injuries. April had the lowest daily average—251 deaths, while July was the worst month, with an average of 367.

* * *

Guest speakers at meetings of the Stark County Medical Society are usually scheduled to give a radio talk of general public interest over the Canton station WHBC on the same evening as the meeting of the society.

* * *

The local committee on arrangements for the annual session of the American College of Physicians held at Cleveland April 1-5, consisted of Dr. Howard T. Karsner, chairman; Dr. Edward H. Cushing, Dr. Harold Feil, Dr. Joseph M. Hayman, Jr., Dr. E. P. McNamee, Dr. V. C. Rowland, and Dr. John A. Toomey.

May 12, the anniversary of the birth of Florence Nightingale, will be observed as National Hospital Day throughout the country.

* * *

Approval of the opening of clinics at Dayton's three hospitals whenever city and county officials can provide the necessary funds has been given by the Montgomery County Medical Society.

* * *

The Women's Medical Society of Cincinnati sponsored a health slogan contest among Cincinnati girls as the society's contribution to the Girls' Week program.

* * *

The Military Appropriation Bill passed by the House of Representatives of the Congress, April 4, contained an item of \$130,000 for the preparation of plans for a new building to house the Army and Medical Library and Museum.

* * *

Associated Hospital Service of New York, with an enrollment of more than 1,350,000 subscribers, now covers one out of every six persons in the New York metropolitan area.

* * *

In a mass protest against the National Federation of Woman's Clubs' endorsement of the Wagner Health Bill, physicians' wives in New Jersey have walked out of that organization. The action was taken through the New Jersey State Medical Society Woman's Auxiliary which severed its affiliation with the federation.

* * *

Health authorities in Westchester County, New York, recently discovered a woman aged 101, who has probably been a typhoid carrier for 80 years, according to *Health News*. This fact was brought to light when one of her great-grandchildren had typhoid in 1938 and another in 1939.

* * *

Western Reserve University received a legacy expected to amount to \$27,000 from the estate of the late Dr. H. C. Bliss, Cleveland, and Nellie Hoover Bliss, his wife, the legacy to be used for student loan funds, or in such other manner as the University trustees deem wise.

* * *

The New York State Board of Pharmacy has issued a new rule requiring that sulfanilamide, sulfapyridine, their derivatives and mixtures containing them, be sold only on the prescription of a physician. Further, that the prescription shall remain on file in the pharmacy and is not to be refilled if it bears indication by the physician to that effect.

In Memoriam

Clark M. Barstow, M.D., Bryan; University of Wooster, Medical Department, Cleveland, 1881; aged 85; former member of the Ohio State Medical Association and the American Medical Association; died March 21. One of Northwestern Ohio's pioneer physicians, Dr. Barstow practiced in Columbia for five years, and in Bryan for nearly 50 years, until forced to retire because of ill health. In 1920 he was president of the Williams County Medical Society. Two daughters and four sons survive.

Moses Emmett Blahd, M.D., Cleveland; Western Reserve University School of Medicine; aged 57; member of the Ohio State Medical Association and the American Medical Association and Fellow of the American College of Surgeons; died February 28, in Tucson, Ariz. Dr. Blahd practiced in Cleveland for 34 years, and since 1922 had been chief of the department of surgery at Mount Sinai Hospital. During the World War he was a Captain in the Medical Corps of the United States Army. Dr. Blahd made many contributions to medical literature. A memorial service in tribute to Dr. Blahd was held at Mount Sinai Hospital, Sunday, May 17. Dr. Howard Dittrick spoke in behalf of the Cleveland Academy of Medicine. Dr. Blahd is survived by his widow a son, and a daughter—Dr. Margery Blahd Wile, a resident physician at Michael Reese Hospital, Chicago.

Jesse M. Brooke, M.D., Peebles; Starling Medical College, Columbus, 1896; aged 70; member of the Ohio State Medical Association and the American Medical Association; died April 2. Dr. Brooke practiced in Peebles for 38 years. He was previously located in Dunkinsville and in West Virginia. In 1937, Dr. Brooke was vice-president of the Adams County Medical Society. His widow, a daughter and two brothers survive.

Carleton G. Crisler, M.D., Cincinnati; New York University College of Medicine; 1903; aged 60; member of the Ohio State Medical Association and Fellow of the American Medical Association and the American College of Surgeons; died March 9. Dr. Crisler had been a member of the staff of Christ Hospital since 1911. He was surgeon-general of the Cincinnati, New Orleans and Texas Pacific Railway Company and, until last year, associate professor of clinical surgery at the University of Cincinnati College of Medicine. Dr. Crisler was a member of the Queen City, Commonwealth, Camargo, Optimist and Cincinnati Country Clubs. His widow and a son survive.

Roy Irwin Curry, M.D., Mansfield; Western Reserve University School of Medicine, Cleveland, 1922; aged 47; member of the Ohio State Medical Association and the American Medical Association; died April 3. A native of Fremont, Nebr., Dr. Curry located in Mansfield 12 years ago. He formerly practiced in Bedford. Dr. Curry was a member of the Methodist Church, the American Legion and the Masonic Order. His widow, a daughter, two sons, his parents and a sister survive.

George Albert Gorsuch, M.D., Toledo; Toledo Medical College, 1896; aged 66; former member of the Ohio State Medical Association and the American Medical Association; died March 10. Dr. Gorsuch first practiced in Helena for two years, and later located on the East Side of Toledo. In 1911 he moved to Bowling Green, continuing practice there until recently, when he returned to Toledo. A Captain in the Medical Corps of the United States Army, Dr. Gorsuch was a member of the American Legion and the Methodist Church. Surviving are his widow, a daughter, a son, two sisters and five brothers.

Seth Hattery, M.D., Massillon; Bellevue Hospital Medical College, New York, 1879; aged 90; member of the Ohio State Medical Association and the American Medical Association; died April 3. One of the oldest practicing physicians in the United States, Dr. Hattery kept regular office hours until he became seriously ill six weeks prior to his death. He established an office in Bolivar in 1879, and had practiced in Massillon since 1892. Active in local business and civic affairs, Dr. Hattery was recently elected president of the State Bank for the eleventh consecutive time. He had served on the city council, and the local board of health. In 1928 Dr. Hattery was a delegate to the National Democratic Convention at Houston, Texas. Dr. Hattery had been a Mason for 67 years, and was recognized as the oldest living Kiwanian in the country. His closest survivors are three nieces and a nephew.

Charles Clarence Headley, M.D., Cambridge; Medical College of Virginia, Richmond, 1906; aged 62; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 28. Dr. Headley practiced in Holloway, Belmont County for 10 years and in Cambridge for 23 years. An active member of the Guernsey County Medical Society, he was president in 1933, and secretary in 1932, 1938, 1939 and 1940. Dr. Headley was a member of the board of trustees of the First Methodist

VITAMIN K—A NEW FAT-SOLUBLE VITAMIN

● In 1935, the existence of a new fat-soluble vitamin—distinct from vitamins A, D, and E—was demonstrated. A deficiency of this vitamin in the diet of chicks was found to lead to a disease characterized by anemia, hemorrhages, and prolonged clotting time of the blood (1). The name of this new factor was derived from the Danish designation "Koagulations-Vitamin".

The chemical, physical, and biological properties of vitamin K have been well established (1, 2, 3, 4). Besides vitamins K₁ and K₂—isolated from natural materials—an homologous series of synthetic compounds has been found to possess antihemorrhagic properties. As the vitamin K unit, the antihemorrhagic activity of 1.0 microgram of pure 2-methyl-1, 4-naphthoquinone has been suggested; however, further research seems necessary before final selection of the vitamin K unit is made (4).

Clinical investigations have also established the importance of vitamin K in the clotting of human blood (3, 4). It has been demonstrated that avitaminosis K results in a prothrombin deficiency, with resultant prolonged blood clotting time. Al-

though hypoprothrombinemia can frequently be attributed to inadequate intestinal absorption of vitamin K or to hepatic injury, other causative factors are also recognized; important among these is a deficiency of vitamin K in the diet.

The distribution of vitamin K in foods also has been studied. It has been found that vitamin K activity appears to be concentrated in the photosynthetic portion of the plant (3). Research during the next several years should add greatly to our knowledge of the extent to which this factor occurs in common American foods.

Discovery of vitamin K is another step towards establishment of the complete nutritive requirements of man. Recognition of this new factor, however, suggests that other factors—as yet unknown—will undoubtedly be found essential to man. Consequently, the wisdom of a varied diet to supply the identified, as well as the unidentified, essential nutrients, should be immediately evident. The large number of canned foods, available at all seasons, may well be included in diets designed to promote optimum nutrition.

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REFERENCES

1. 1937. Annual Review of Biochemistry, 6, 364.
2. 1939. Ibid., 8, 428.
3. 1939. J. Am. Med. Assoc., 112, 1457.
4. 1939. Ibid., 113, 2056.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-ninth in a series, which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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Church, and a member of the Masonic Order. Surviving are his widow, a daughter, two sisters, and a brother, Dr. A. B. Headley, Cambridge.

William B. Jones, M.D., Cleveland; Western Reserve University School of Medicine, 1938; aged 26; died March 22, at Plain City. Dr. Jones was assistant resident in dermatology at Cleveland City Hospital. Surviving are his widow, a son and his father.

Charles Addison Kefauver, M.D., Stoutsville; Western Reserve University School of Medicine, 1886; aged 84; former member of the Ohio State Medical Association and the American Medical Association; died April 2. Dr. Kefauver retired in 1927, after having practiced in Stoutsville for 41 years. Surviving are his widow, a brother, and three sons, one of whom is Dr. A. L. Kefauver, Columbus, a member of the Medical Staff of the State Industrial Commission.

Jay G. Keiser, M.D., Columbus; Cleveland Homeopathic Medical College, 1909; aged 56; died March 29. A native of Bryan, Dr. Keiser went to Columbus in 1914. He served overseas 18 months in the Medical Corps of the United States Army, and had been in ill health for the past 17 years as a result of his war service. Dr. Keiser was a member of Delta Tau Delta and Alpha Kappa Kappa fraternities; the Masonic Order; Veterans of Foreign Wars and the Universalist Church. His brother, Dr. F. L. Keiser, Columbus, superintendent of the State Institution for the Feeble-Minded, survives.

Robert A. Kennedy, M.D., Cleveland; Western Reserve University School of Medicine, 1888; aged 79; died March 13. Dr. Kennedy practiced in Cleveland for nearly 50 years. He was a member of the Presbyterian Church. His brother survives.

James Grant Shirer, M.D., Newark; Starling Medical College, Columbus, 1896; aged 68; former member of the Ohio State Medical Association and the American Medical Association; died April 1. Dr. Shirer started practice in Cardington, and later went to Otsego, locating in Newark in 1902. He was a member of the Masonic Order, the Knights of Pythias and the Elks' Lodge. Surviving are his widow and two brothers.

Julia Frances Trout, M.D., Lancaster; Women's Medical College of Pennsylvania, Philadelphia, 1893; aged 84; former member of the Ohio State Medical Association and the American Medical Association; died March 25. Dr. Trout, the only woman physician ever to have practiced in Lancaster, was located there for many years. Her sister survives.

John Davis Watterson, M.D., Kalida; University of Michigan Medical School Ann Arbor,

Mich., 1892; aged 78; former member of the Ohio State Medical Association and the American Medical Association; died March 26. A life-long resident of Putnam County, Dr. Watterson practiced in Kalida for 47 years. He was a Captain in the Medical Corps of the United States Army during the World War. Dr. Watterson was active in the affairs of his community, and was a member of the American Legion and the Masonic Order. Surviving are his widow, two daughters, two sons and a sister.

Death Claims Dr. Glenn E. Cullen

Glenn E. Cullen, Ph.D., Cincinnati, aged 50, nationally known figure in medical research, and professor of research pediatrics at the University of Cincinnati, College of Medicine, died April 11. A native of Isle St. George, a small island in Lake Erie, Dr. Cullen was graduated from the University of Michigan in 1912, with a degree in chemical engineering. In 1917 he was awarded a Ph.D. by Columbia University. Dr. Cullen began his teaching career in 1913 at the Rockefeller Institute of Medical Research in New York City. He left New York in 1922 to take the chair of professor of biochemistry at Vanderbilt University. In 1924-25 he held a traveling fellowship from the Rockefeller Institute. Dr. Cullen joined the University of Cincinnati staff as professor of biochemistry in 1931 and director of the clinical laboratories at Children's Hospital. In 1938 he was president of the American Society of Biological Chemistry and Chairman of the Federation of American Societies for Experimental Biology.

Industrial Medical Meeting Scheduled for June 4-6, New York City

The 25th Annual Meeting of the American Association of Industrial Physicians and Surgeons, together with the First Annual Meeting of the American Industrial Hygiene Association, will be held at the Hotel Pennsylvania, New York City, June 4-7. This four-day convention will be devoted to the problems of industrial health in all of their various medical, technical, and hygienic phases, with particular stress on prevention and control of occupational hazards. The dinner on Thursday evening, June 6, will be the occasion of the presentation of the Wm. S. Knudsen award for the year 1939-40. The medical profession is not only invited, but urged to attend these meetings as they will be of unusual interest and value to all physicians interested in industrial injuries and disease. Details of the meetings can be obtained by writing the executive secretary, Armour G. Park, 540 N. Michigan Ave., Chicago, Ill.

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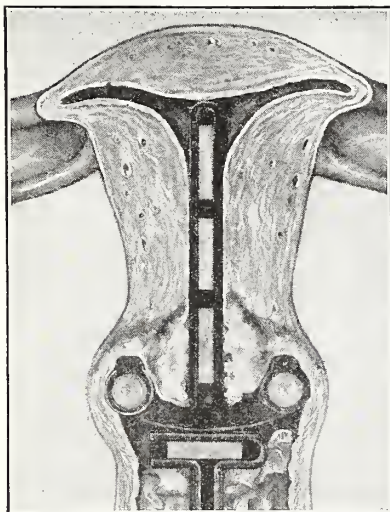
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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

Dr. Howard D. McIntyre, Cincinnati, spoke on "The Early Clinical Diagnosis of Brain Tumor", at a meeting of the Butler County Medical Society, Thursday, March 28, at Hamilton. There were 40 members present.

"Burns", was the subject discussed by Dr. H. J. Lavender, Cincinnati, at a meeting of the society, Thursday, April 25.—Vera Coombs Iber, M.D., secretary.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during April:

April 2—"Practical Aspects of Current Investigative Studies in Syphilis", Harry Eagle, M.D., passed assistant surgeon, United States Public Health Service, Johns Hopkins Hospital, Baltimore, Md.

April 9—"The Differential Diagnosis of Recurrent Skin Eruptions of the Hands and Feet", Francis E. Senear, M.D., president, American Dermatological Association and professor of dermatology, University of Illinois College of Medicine, Chicago, Ill. This meeting was under the auspices of the Cincinnati Dermatological Society.

April 16—Hospital Night. Case reports arranged and presented by members of the staff of Children's Hospital. "Suspected Allergy, Bronchial Asthma, Open Safety Pin Found at Time of Adenoid Operation", Dr. Henry M. Goodyear; "Two Cases of Structural Scoliosis", Dr. Joseph A. Freiberg; "Tracheobronchitis", Dr. Robert E. Howard; "A Case of Banti's Disease Treated by Splenectomy", Dr. Leo S. Friedman; "Esophageal Atresia", Dr. Vinton E. Siler; "Unusual Case of Obesity in an Infant", Dr. John M. Thomas; "A New Treatment of Burns", Dr. Vinton E. Siler and Dr. Earl Glicklich.

April 23—"Human Refrigeration", Dr. Lawrence W. Smith, professor of pathology, Temple University School of Medicine, Philadelphia, Pa.

April 30—"Photomicrographs in Color", Dr. Charles Goosmann and Dr. H. L. Claassen; "The Stimulation of Growth in Undersized Children by Means of Endocrine Therapy", Dr. Louis A. Lurie, with discussion by Dr. J. Victor Greenebaum.—Bulletin.

HIGHLAND

Dr. C. H. Skeen discussed a case of "Transposition of the Heart", at a meeting of the Highland County Medical Society, Wednesday noon, April 3, at the Highland House, Hillsboro.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Dr. John R. Gersack spoke on "Etiology and Treatment of Pruritis", at a meeting of the Clark County Medical Society, Thursday, March 14, at the Hotel Shawnee, Springfield.—News clipping.

GREENE

An illustrated lecture on "Hoarseness" was given by Dr. Robert F. Boswell, Dayton, at a meeting of the Greene County Medical Society, Thursday, April 4, at Xenia.—Donald F. Kyle, M.D., secretary.

MIAMI

The following papers were presented at a meeting of the Miami County Medical Society, Friday, April 5, at the Stouder Hospital, Troy: "1939 Advances in Pediatrics", Dr. Harry Shilling, Troy; "Spontaneous Pneumothorax", Dr. R. D. Spencer, Piqua; "Blood Dyscrasias of Infancy and Childhood", Dr. Hugh Wellmaier, Piqua.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. K. W. Horn spoke on "The Clinical Significance of Hematuria", and Dr. M. W. Coleman discussed "Cystitis in Women", at a meeting of the Montgomery County Medical Society, Friday evening, April 5, at Dayton.

Dr. Edwin J. Stedem, Columbus, addressed the society, Friday evening, April 19, on the subject: "Bleeding from the Uterus".—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

ALLEN

"The Symptoms and Diagnosis of Foreign Bodies in the Air and Food Passages", was the subject discussed by Dr. Eugene L. Bulson, Fort Wayne, Ind., at a meeting of the Academy of Medicine of Lima and Allen County, Tuesday, March 19, at Memorial Hospital, Lima.—J. M. McBride, M.D., secretary.

AUGLAIZE

The following talks were given at a meeting of the Auglaize County Medical Society, Thursday evening, April 11, at the Library Room, St. Marys: "The Clinical Significance of Hoarseness", Dr. Robert E. Boswell, Dayton; "Infections of the Hand", Dr. Kent Finley, Dayton; "Professional

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LOGAN

Dr. I. D. Baxter, Lima, spoke on "Surgical Conditions of Childhood", at a meeting of the Logan County Medical Society, Friday night, March 1, at the Logan Hotel, Bellefontaine.—News clipping.

MARION

At a meeting of the Marion Academy of Medicine, Tuesday night, March 5, at the Marion City Hospital, Dr. Emmerich von Haam, Columbus, discussed "Diagnosis of Venereal Lesions".—News clipping.

SENECA

Dr. J. L. Roberts, Toledo, discussed "General Aspects of Ophthalmology" at a meeting of the Seneca County Medical Society, Thursday evening, April 11, at the Shawhan Hotel, Tiffin.—M. H. Aiken, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The following programs were presented by the Toledo Academy of Medicine during April:

April 4—General Meeting. "The Medical Library—Its Functions and Possibilities", Dr. Clyde L. Cummer, Cleveland, president, Cleveland Medical Library Association.

April 12—Section of Pathology, Experimental Medicine and Bacteriology. "The Etiology and Treatment of Nutritional Anemias", Dr. Frank Bethel, University of Michigan Medical School, Ann Arbor, Mich.

April 19—Medical Section. "Roentgen Diagnosis of Some Common Chest Lesions", Dr. Willis S. Peck, Ann Arbor, Mich., formerly member of staff, University of Michigan Medical School.

April 26—Surgical Section. "Medical and Surgical Treatment of Intestinal Obstruction", Dr. Charles G. Johnston, professor of surgery, Wayne University College of Medicine, Detroit.

SANDUSKY

Dr. Dudley M. Stewart spoke on "The Diagnosis and Treatment of Low Back Pain", at a meeting of the Sandusky County Medical Society, Thursday, March 28, at the Bourdette Hotel, Bellevue.—J. W. Agnew, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following programs were presented by the Academy of Medicine of Cleveland during April:

April 12—Joint Meeting of the Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Quantitative Studies of Antithrombin", Dr. S. J. Wilson; "Quantitative Studies of Urinary Estrogens and Gonadotropins in Normal Women", Dr. N. O. Rothermich; "The Effect of Sex Hormones Upon Fibroblasts Grown in Vitro", Leona Cappel, M.S.; "The Effect of Sex Hormones Upon the Production of Antibodies", Dr. E. von Haam and Irene Rosenfield, M.S.; "The Induction of Ovulation in Women by Equine Gonadotrophin (Gonadogen-Upjohn)", Dr. B. B. Rubenstein.

April 17—Obstetrical and Gynecological Section. "Clinical Experience with Stilboesterol", Dr. G. Keith Folger; "Suppression of Lactation with Testosterone Propionate", Dr. Paul V. Duffy; "The Forgotten Man in Sterility", Dr. Sarah Marcus.

April 19—"The Surgical Treatment of the Lesions of the Gall Bladder and Bile Ducts", Dr. Waltman Walters, Rochester, Minn.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. J. C. Placak, Cleveland, spoke on "Finding Tuberculosis in the Early Stages", at a meeting of the Columbiana County Medical Society, at the American Legion Hall, Lisbon, Tuesday night, March 12.—News clipping.

PORTAGE

An especially well-constructed and interesting address on "The Common Neuroses", was given by Dr. E. O. Harper, Cleveland, at a meeting of the Portage County Medical Society, Thursday evening, April 4, at the home of Dr. J. M. Painter, Kent. Dr. R. L. Rutledge, Alliance, Sixth District Councilor, explained the object of the meeting scheduled for March 31 at Alliance to discuss the program of the Ohio State Medical Association on medical service plans.—E. J. Widdecombe, M.D., secretary.

STARK

Dr. Emil Novak, Baltimore, Md., spoke on "Indications and Limitations in Gynecological Endocrine Therapy", at a meeting of the Stark County Medical Society, Wednesday, March 27, at the Elks' Club, Canton. Dr. Novak gave a 15-minute radio talk over station WHBC the same evening, entitled "The Woman Asks Her Doctor About Cancer".—Clair B. King, M.D., secretary.

SUMMIT

"Peripheral Vascular Diseases" was the subject discussed by Dr. E. V. Allen, associate professor of medicine, University of Minnesota

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CHICAGO, ILLINOIS**

Medical School, Rochester, Minn., at a meeting of the Summit County Medical Society, Tuesday evening, April 2, at the Akron City Hospital.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Dr. H. P. Worstell, asst. supervisor, Medical Section, State Industrial Commission, spoke on "The Relationship of Medical Etiologies to Workman's Compensation", at a meeting of the Belmont County Medical Society, Thursday evening, April 11, at the Martins Ferry City Hospital.—C. W. Kirkland, M.D., secretary.

Eight District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

FAIRFIELD

"Pneumonia" was the subject discussed by Dr. L. H. VanBuskirk, Columbus, at a meeting of the Fairfield County Medical Society, Tuesday noon, March 12, at The Georgian, Lancaster.—News clipping.

GUERNSEY

Dr. George T. Pack, Memorial Hospital, New York City, a native of Cambridge, was guest speaker at a meeting of the Guernsey County Medical Society, Thursday, March 14, at Cambridge. His subject was: "Cancer of the Stomach". Approximately 25 physicians from the Eighth District were guests at the meeting.—News clipping.

Dr. A. A. Hall, Columbus, spoke on "Non-Surgical Drainage of the Gall Bladder", at a meeting of the society, Thursday noon, March 21, at the Berwick Hotel, Cambridge.—News clipping.

LICKING

Dr. Drew L. Davies, Columbus, spoke on "First Aid", at a meeting of the Licking County Medical Society, Tuesday night, March 26, at Hull Place, Newark.—News clipping.

MUSKINGUM

At a meeting of the Muskingum County Academy of Medicine, Wednesday evening, April 3, at the University Club, Zanesville, Dr. William Tandy presented films and gave a talk on "Obstructions of the Larynx and Their Treatment".

The academy voted unanimously to approve any plan worked out by the State Association for medical service to the low-income groups.—Beatrice T. Hagen, M.D., secretary.

PERRY

Dr. A. M. Kelley, Lancaster, was guest speaker at a meeting of the Perry County Medical Society, Thursday noon, March 21, at the Park Hotel, New Lexington.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

"Medical Service Plans" was the subject discussed by Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, at a meeting of the Hempstead Academy of Medicine, Monday evening, April 8, at Portsmouth General Hospital.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

An allergy conference, entitled "A Consideration of Hay Fever", was presented by Dr. Jonathan Forman, Dr. John F. Mitchell, Dr. William F. Mitchell and Dr. Clark P. Pritchett, at a meeting of the Columbus Academy of Medicine, Monday, April 1, at the Columbus Gallery of Fine Arts.

The Academy's meeting on Monday evening, April 15, was devoted to a symposium on "Fractures of the Hip", by Dr. Judson D. Wilson, Dr. George F. Collins, Dr. Clyde W. Dawson and Dr. E. Harlan Wilson.—Bulletin.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ERIE

Dr. J. L. Reycraft, Cleveland, assistant clinical professor of gynecology, Western Reserve University School of Medicine, spoke on "The Operative Treatment of Uterine Prolapse, Cystocele and Rectocele", at a meeting of the Erie County Medical Society, Wednesday evening, March 13, at the Hotel Rieger, Sandusky.—News clipping.

RICHLAND

An address on "The Treatment of Fractures" was made by Dr. E. J. Brown, Cleveland, at a meeting of the Richland County Medical Society, Thursday afternoon, March 28, at Mansfield General Hospital. Dr. Brown is chairman of the Regional Fracture Committee of the American College of Surgeons.—D. D. Deeds, M.D., secretary.

Mine Blast Awards Total \$482,400

Officials of the State Industrial Commission estimate that awards to dependents of the 72 men killed in the Willow Grove mine disaster will total \$482,400. The maximum individual award is \$6,500, plus \$200 for funeral expenses. Payments will be made from the Commission's \$3,342,000 "catastrophe fund". The fund, established by statute, is financed by 2 per cent of the Commission's general premium income, and is reserved for individual accidents, resulting in death and injury claims exceeding \$15,000.

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Buckeye News Notes

Akron—Dr. Carl R. Steinke is president of the board of trustees of the Akron Area Council of the Boy Scouts of America.

Alliance—Dr. George L. King is the new president of the local Chamber of Commerce.

Alliance—Dr. George M. Wilcoxon has resigned as head football and basketball coach at the local high school to devote his entire time to the practice of medicine.

Ashtabula—Dr. William J. McCarthy pointed out the pitfalls of socialized medicine at a meeting of the Y.M.C.A. speaker's group.

Athens—Dr. W. R. Hutchison, for four years a member of the staff of the Athens State Hospital, spoke on "Shock Treatment of Dementia Praecox", at a meeting of the Rotary Club.

Bluffton—Dr. B. W. Travis spoke on "Modern Methods of Blood Transfusion", at a meeting of the Men's Brotherhood of the Reformed Church.

Canton—An address on "Medical Economics" was made by Dr. Frank S. Van Dyke at a meeting of the Alliance City Hospital staff.

Cincinnati—Dr. Gerald H. Castle is the new president of the Masonic Club.

Cincinnati—Dr. Parke G. Smith, President of the Ohio State Medical Association, talked on "The Problems of Medical Care", at a meeting of the Lions Club.

Cincinnati—Dr. Mifflin B. Brady, former president of the local board of health, was recently honored by a dinner on the 50th anniversary of his entrance into medical practice.

Cleveland—Dr. Gerald B. Hurd has been appointed head of the department of gynecology in the division of obstetrics and gynecology at St. Luke's Hospital.

Cleveland—Dr. Victor C. Laughlin, formerly of Dayton, has been promoted to the grade of major in the Medical Corps of the Organized Reserves, United States Army.

Cleveland Heights—The City Club was recently addressed by Dr. Geo. W. Binkley on the subject, "Syphilis and Its Control."

Columbus—Dr. Dan Morse discussed "Tuberculosis" at a meeting of the Lawrence County Tuberculosis and Health Association at Ironton.

Columbus—Dr. Earlin J. Simms is the new exalted ruler of the local Elks' Lodge.

Creston—Dr. and Mrs. R. J. Baird recently observed their 65th wedding anniversary.

Dayton—Charles F. Kettering has been elected honorary president of the Miami Valley Hospital board.

Dayton—Dr. Gertrude Felker addressed a local

P.T.A. meeting on "What Shall We Tell Our Child?"

Defiance—More than 600 children were vaccinated for smallpox and 500 immunized for diphtheria, in a cooperative project of the Defiance County Medical Society and the local health department.

Delaware—A large portrait of Dr. Floyd V. Miller has been presented to Jane M. Case Hospital by members of the staff. The presentation was made by Dr. Dorrance S. James, president of the Delaware County Medical Society.

Findlay—Findlay and Hancock County school children are to receive free tuberculin tests as a result of a cooperative arrangement between the Hancock County Medical Society and local school and health authorities.

Fostoria—Dr. John H. Norris, who will be 85 years old on May 13, was guest of honor at a dinner given by the members of the staff of City Hospital, in commemoration of the 63rd anniversary of his entrance into the practice of medicine.

Fremont—Dr. E. W. Baker was recently presented with a 50-year pin by the Clyde Masonic Lodge.

Granville—Dr. Russell H. Williams is on a two-month boat trip to South America.

Hamilton—"Cancer Control" was the subject of an address made by Dr. Vera Coombs Iber at a meeting of the Princeton Current Events Club.

Madison—Dr. and Mrs. J. V. Winans recently celebrated their 52nd wedding anniversary.

Marion—Dr. Auguste Rhu observed his 91st birthday anniversary recently.

Mt. Vernon—Dr. Robert H. Hoecker has been reappointed city health commissioner for two years.

Port Clinton—Dr. Carl J. Yeisley is the president of the recently-organized H. B. Magruder Memorial Hospital Association.

Put-in-Bay—Dr. Arthur S. Dutton, Cleveland, is the new resident physician here.

Somerset—Dr. Fred E. Spangler addressed a child development meeting at the American Legion Hall, Junction City, on "Children's Diseases".

Toledo—Dr. Louis R. Effler, whose hobby is archaeological research, recently returned from an airplane trip to Hawaii.

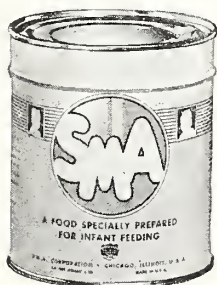
Van Wert—Dr. J. B. Sampsell and Dr. R. E. Shell were re-elected president and secretary of the staff of Van Wert County Hospital. Dr. W. C. Smith is the new secretary, succeeding Dr. H. E. Wilkinson.

Wooster—Dr. John G. Wishard recently completed 52 years in the practice of medicine.

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New Sickness Compensation and Medical Care Bill Before Congress

"On March 19, Senator Lodge of Massachusetts proposed by S. 3630 the enactment of a National Health Act of 1940". The bill is in two parts. The first part represents a revision of a bill introduced by Senator Lodge last August. It proposes to pay cash benefits from the old age insurance fund, created under the provisions of the Social Security Act, on behalf of certain unemployed individuals who receive medical, dental or hospital care, or whose wife, child under the age of 16, or wholly dependent parent receives such care. The benefits to be thus paid may not exceed \$40 in any calendar year and are payable, on application of the individual, by the managing trustee of the old age insurance fund to the doctor, dentist or hospital rendering services. Among other conditions that must be met by an individual before the benefits may be payable is the requirement that he must have been registered as unemployed for at least four consecutive weeks at a public employment office or other agency approved by the Social Security Board. Senator Lodge estimates that this part of the bill will involve a possible expenditure of some \$15,000,000 for the first fiscal year of its operation.

"The second part of the bill would add a new title to the Social Security Act to be captioned Grants to States for Medical Services and Facilities. The theory from which this part of Senator Lodge's bill stems is that there are certain standardized medical services and facilities which because of their high costs are not used in many cases in which their use is desirable. Senator Lodge proposes, therefore, federal grants to states that develop plans to provide such services and facilities free to needy persons and at a minimum cost to other persons, the federal grant to equal the amount expended by the state under the plan. The medical services and facilities that are thus to be made available, it is proposed, are X-ray treatments, respirators and any drug which is of substantial, accepted and specific value in the treatment or prevention of pneumonia, streptococcic infections, diabetes, anemia, congestive heart failure, glandular and nervous disorders, nutritional deficiency and typhoid fever. In a statement issued concurrently with the introduction of this bill, Senator Lodge indicated that he had in mind such drugs and substances as sulfapyridine, insulin, liver extract, ampules and suppositories of mercupurin (a drug which increases the secretion of urine), endocrine products, vitamin products and typhoid vaccine.

"The author of the bill emphasized the fact that his proposal does not smack of regimentation, that each individual would be accorded the privilege of selecting his own doctor and hospital and that the state plan would then come into operation by making available the designated

services and facilities. Senator Lodge was unable to supply any estimate as to the probable cost of this section of his bill, which was referred to the Senate Committee on Education and Labor, before which is pending also Senator Wagner's hospital construction proposal.

"This measure is interesting for the thought it stimulates. Essentially part one is a sickness compensation plan for unemployed and their dependents, subject to innumerable abuses and almost impossible of regulation. Part two recognizes the catastrophic character of certain expenses associated with illness and attempts to meet them on an emergency basis. This obviously represents only one phase of a large problem."—*The Journal of the A.M.A.*

Columbus—Dr. George M. Curtis spoke on "The Rationale of Splenectomy in the Treatment of Certain Anemias", at the annual assembly of the Southeastern Surgical Congress, held at Birmingham, Ala., March 11-13.

Toledo—Dr. John J. Wright, son of Dr. John F. Wright, has been appointed professor of research epidemiology at North Carolina University School of Medicine, Chapel Hill, N. C., and also at Duke University School of Medicine, Durham, N. C.

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Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16.

American Medical Association, New York, June 10-14.

American Association of the History of Medicine, Atlantic City, May 4-5.

American Laryngological Association, Rye, N. Y., May 27-29.

American Orthopedic Association, Kansas City, May 4-10.

American Pediatric Society, Skytop, Pa., May 2-4.

American Psychiatric Association, Cincinnati, May 20-24.

American Public Health Association, Detroit, October 8-11.

American Society for Clinical Investigation, Atlantic City, May 1.

American Surgical Association, St. Louis, May 1-3.

Association of American Physicians, Atlantic City, May 7-8.

Association of Military Surgeons of U. S., Cleveland, October 10-12.

National Tuberculosis Association, Cleveland, June 3-6.

Society for the Study of Asthma and Allied Conditions, Atlantic City, May 4.

Named to Fellowship

Included in the 126 associate members of the American College of Physicians elevated to fellowship at the annual meeting of the College held in Cleveland, April 1-5, were the following Ohio physicians: Dr. Munroe I. Sparks, Cleveland; Dr. Reginald F. Jukes and Dr. Alexander P. Ormond, Akron; Dr. Joseph N. Ganim, Dr. Dale P. Osborn, and Dr. Irving H. Schroth, Cincinnati; Dr. Myron D. Miller, Columbus; Dr. Thomas P. Sharkey, Dayton, and Dr. Joseph Rosenfeld, Youngstown. Ohioans included in the 144 physicians elected to associate membership were: Dr. James F. Slowey, Dr. M. H. Fineberg, Dr. C. F. Garvin, Dr. L. G. Steuer, and Dr. Z. T. Wirtschafter, Cleveland; Dr. Olin G. Wilson, Canton, and Dr. J. W. Schoolnic, East Liverpool.

Columbus—Dr. R. H. Markwith, State Director of Health, was one of the speakers at the Thirty-seventh Annual Meeting of the Ohio State Nurses' Association held recently at Akron.

Norwood—"Medicine, Old and New", was the topic discussed by Dr. William R. Chambers at a meeting of the Kiwanis Club.

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Ohio Hospital Association Holds Its 26th Annual Meeting in Columbus

The Twenty-Sixth Annual Meeting of the Ohio Hospital Association was held at the Deshler-Wallick Hotel, Columbus, April 2, 3 and 4, in conjunction with meetings of the following affiliated associations: Ohio Dietetic Association; Ohio Association of Record Librarians; Ohio Association of Nurse Anesthetists; Hospital Obstetric Society of Ohio; Ohio Society of Medical Technologists; Ohio Society of Hospital Pharmacists and the Ohio Society of Pathologists.

Among the subjects discussed by physicians were the following: Dr. Paul I. Hoxworth, Cincinnati, "Intravenous Therapy"; Dr. R. H. Markwith, State Director of Health, "Relationship of Public Health to Hospitals"; Dr. J. H. J. Upham, Columbus, Dean, Ohio State University College of Medicine, "House Staff Organization"; Dr. James R. Reeves, Columbus, "Carbohydrate Metabolism in Relation to the Modern Diet"; Dr. Leon Schiff, Cincinnati, "The Use of the Meulengracht Diet in the Treatment of Bleeding Peptic Ulcer"; Dr. Anthony Ruppertsberg, Jr., Columbus, "Review of Standard Classified Nomenclature"; Dr. Myron D. Miller, Columbus, "Manifestations of Tuberculosis"; Dr. Ralph G. Carothers, Cincinnati, "Trauma"; Dr. James E. C. Hallisy, Cleveland, "Historical Facts in Surgery"; Dr. Marion E. Black, Cleveland, "Notes on the Organization of an Obstetrical Service"; Dr. Scott C. Runnels and Dr. L. Burdett Wylie, Cleveland, "Still Births and Neonatal Deaths"; Dr. H. L. Reinhart, Columbus, "Demonstration of Special Tissue Stains"; Dr. S. A. Hatfield, Columbus, "The Value of Pharmacy Department to the Attending Physician."

New officers of the Ohio Hospital Association are: F. G. Fowler, D.D., Columbus, president; Worth L. Howard, Akron, president-elect; Winifred Culbertson, Cincinnati, first vice-president; Sister M. Carmeletia, Cleveland, second vice-president; Rt. Rev. Mons. M. F. Griffin, Cleveland, treasurer, and the following trustees: Dr. R. H. Bishop, Jr., Cleveland; W. L. Benfer, Toledo; Frances R. Van Buren, Cincinnati, and Ruth Brant, Martins Ferry. Executive secretary of the Association is Ralph H. Jordan, Columbus.

Form League Against Epilepsy

The American League Against Epilepsy, composed of physicians, announces the formation of the Laymen's League Against Epilepsy for the purpose of educating the public concerning the various aspects of epilepsy and for stimulating contributions toward research. Ordinary members pay \$1 and sustaining members \$5 annually and receive a periodical about epilepsy. Office of the League is at the Harvard Medical School, 25 Shattuck St., Boston.

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Guttmann, E. and Sargent, W.: Observations on Benzedrine—Brit. Med. J., 1:1013, May 15, 1937.

Nathanson, M. H.: The Central Action of Beta-aminopropylbenzene (Benzedrine)—J.A.M.A., 108:528, Feb. 13, 1937.

Myerson, A.: Effect of Benzedrine Sulfate on Mood and Fatigue in Normal and in Neurotic Persons—Arch. Neurol. & Psychiat., 36:816, Oct., 1936.

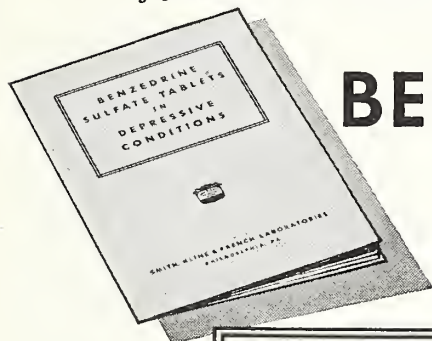
Wilbur, D. L.; MacLean, A. R. and Allen, E. V.: Clinical Observations on the Effects of Benzedrine Sulphate—Proc. Staff Meet. Mayo Clin., 12:97, Feb. 17, 1937.

Woolley, L. F.: The Clinical Effects of Benzedrine Sulphate in Mental Patients with Retarded Activity—Psychiatric Quart., 12:66, January, 1938.

Davidoff, E. and Reifenstein, E. C., Jr.: The Stimulating Action of Benzedrine Sulfate—J.A.M.A., 108:1770, May 22, 1937.

Guttmann, E.: The Effect of Benzedrine on Depressive States—J. Ment. Sci., 82:618, Sept., 1936.

If you did not receive a copy, we shall be glad to mail one to you.



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Syphilis Education Program by Toledo Academy in Schools a Big Success

Inaugurating the 1940 educational campaign on syphilis, the Committee on Venereal Disease of the Toledo Academy of Medicine presented the film, "With These Weapons", to all of the local junior and senior high schools, and at meetings of Parent-Teacher's groups and other organizations. During the week of March 4-9, approximately 10,000 students, parents and teachers viewed the film. A physician was present at each of the meetings for the purpose of explaining the film and the campaign. A short question and answer period followed each showing, and unlike any of the committee's former experiences, the questions were many and varied.

Physicians in charge of these meetings were Dr. L. D. Miller, Dr. R. J. Borer, Dr. Paul Hohly, Dr. E. F. Glow, Dr. J. F. Hillabrand and Dr. A. S. Avery. Arrangements for the program were made through the joint efforts of the Academy's Committee on Venereal Disease, under the chairmanship of Dr. Avery, the Junior Chamber of Commerce Health Committee and Dr. M. C. Hanson, city health director. The film was furnished by the State Department of Health.

Since it was impossible to fill the large number of requests for showings of the film, it is likely that the program will be repeated later in the Spring. The Academy's committee is now working with the Senior Chamber of Commerce in an effort to interest local industries in co-operating with the program.

Health Institute Held in Columbus

A Health Institute was conducted by the Franklin County Council of Social Agencies at the Southern Hotel, Columbus, March 18, for the purpose of stimulating local interest in community health. The principal speakers were Dr. Carl A. Wilzbach, health commissioner of Cincinnati, who discussed, "The Relationship of Health to Community Living", and Bleecker Marquette, executive secretary of the Cincinnati Public Health Federation, whose topic was, "Co-ordinating Community Health Activities". Dr. Russel G. Means, president of the Columbus Academy of Medicine, pledged the full cooperation of the Academy in the movement. A committee was selected to study methods and details relative to the establishment of a Central Hospital Admitting Agency in Columbus.

Columbus—Dr. A. Henry Dunn spoke on "Medical Care and the Wagner Health Bill" at a meeting of the League of Women Shoppers.

Martins Ferry—Dr. R. H. Wilson headed the committee in charge of the local Boy Scout Adult Membership campaign and was also vice-chairman of the committee in charge of the campaign in 45 communities in this locality.

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STUDIES IN THE AVITAMINOSES



This page is the fifth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert of the same subject appears in the April 27 issue of The Journal of the American Medical Association.

ONE of the specific lesions resulting from thiamin deprivation consists of degenerative changes in the myelin sheaths of nerve fibers. In peripheral nerves, the myelin breaks down into small globules and finally disappears, and the axis-cylinder undergoes atrophy and fragmentation. Degeneration has been described also in the spinal cord, especially in the posterior columns and anterior and posterior nerve roots, and in the posterior spinal ganglions and the anterior horn cells.

Nerve degeneration caused by vitamin B deficiency. Marchi method of staining, showing deteriorated myelin as black dots in the fasciculi. (At right)



Nerve degeneration in same patient. Weigert stain; normal myelin sheaths in the microscopic section appear dark blue; degenerated nerve fibers do not take the stain. (Courtesy of H. M. Zimmerman, M.D., Yale University School of Medicine and the New Haven Hospital.)

The Neurologic Manifestations of Vitamin B₁ Deficiency



Above, peripheral neuritis of nutritional etiology; note limited dorsiflexion. At right, improvement in dorsiflexion after two and one-half weeks of thiamin chloride therapy. (Courtesy of Henry Field, Jr., M.D., University of Michigan.)

THE early manifestations of vitamin B₁ deficiency affecting peripheral nerves are pain and burning along the involved sensory neurons and impairment of motor nerve function. If the deficiency remains uncorrected, fragmentation of the axis-cylinders of motor nerves follows, leading to further loss of function and atrophy of the innervated muscles. Administration of thiamin chloride over a prolonged period slowly produces regeneration of the involved neurons. If complete degeneration of cells and axis-cylinders in the central nervous system has occurred, regeneration cannot take place.



The Physician's Bookshelf

The Patient's Dilemma, by Hugh Cabot, M.D. (\$2.50. *Reynal and Hitchcock, New York*), is another blast from Doctor Hugh. The best that can be said is that the doctor who has wandered from M.G.H. to Ann Arbor, to Mayos, etc., is now ready to get his supreme thrill by entering into a one man battle with the whole medical profession. A martyr exhibitionist!

Health in Handcuffs, by John A. Kingsbury (75 cents. *Modern Age Books, Inc., New York*), is a summary of the life work of the author. In short it is the complete, and to the unadvised, a persuasive monograph supporting the first Roosevelt national health program. It may well be listed as the major cause of apoplexy among the leaders of the medical profession. It is recommended, however, to physicians with softer arteries as a statement of those who would arrive at state socialism by beginning with health (because the subject appeals to the sentimental).

The Unflinching M.D., by Annunciata Hagen (\$2.00. *Fortuny's, New York*), is a sympathetic presentation in story form of the professional side of our Art. You will enjoy it.

Meditations of a Medico, by George W. Caldwell, M.D. (\$1.50. *A. L. Caldwell, 8225 Fountain Ave., Hollywood, California*), is a book of charming poems by a physician poet—much of it of the inspirational variety.

The First Negro Medical Society, by W. Montague Cobb, M.D. (\$2.15. *The Associated Publishers, Washington, D. C.*), is the story of the Medico-Chirurgical Society of the District of Columbia, 1884-1889. These colored physicians have a most honorable record.

Demonstrations of Physical Signs in Clinical Surgery, by Hamilton Bailey (\$6.50. *Williams and Wilkins, Baltimore*), is the seventh edition of this standard work of reference. Historical footnotes, additional illustrations and helpful alterations have been made.

She Married a Doctor, by Dorothy Walker (\$2.00. *Liveright, New York*), begins where most stories end. They did not live happy ever after, but her story still makes as good a ro-

mance as we have run into in years. It would be helpful if the wives of all physicians who give promise of professional achievement could read it for its lesson. While it fits the surgeon's life better, it is in general applicable to all of us.

Shock, by John Scudder, M.D., (J. B. Lippincott Company, *New York*), is a complete, authoritative monograph. It is therefore a "must book" for a surgeon, and should be in all hospital medical libraries.

Sexual Pathology, by Magnus Hirschfield, M.D. (2.95. *Emerson Books, New York*), appears in a new edition in a single volume and is too well known to students of sex to need comment here.

Why Babies, by Rachel Violette Campbell, (\$2.00. *The Macmillan Company, New York*), is a humorous explanation of a young mother's experience in rearing four children. It abounds with good sense and should contribute to strengthening the American home.

A Study of Jealousy as Differentiated From Envy, by T. M. Ankles, A.P.D.P. (Lond.) (\$2.00. *Bruce Humphries, Boston*), is a stimulating analysis of this evil emotion.

People, by Henry Pratt Fairchild (\$3.00. *Henry Holt, New York*), is a story of the quantity and quality of population. It is a popular presentation by an authority which should be read by all who are interested in population trends, birth control, death rates, war, and civilization itself.

Bothman's Fundus Atlas (*Year Book Publishers, Inc., Chicago*), contains 50 active stereoscopic photographs printed on photographic paper and mounted on a card giving the history of the case and examination notes. A worthwhile attempt in visual education.

Lead Poison and You, by O. Howard Mills (*The Oxford Press, Hollywood, California*), is a compilation by a member for the information of the members of the International Typographical Union. It is based upon his own experience and warns his fellow craftsmen about the diseases and gives information about how to avoid the disease. The author emphasizes detection of lead

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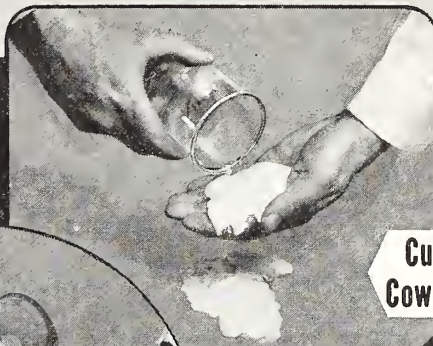
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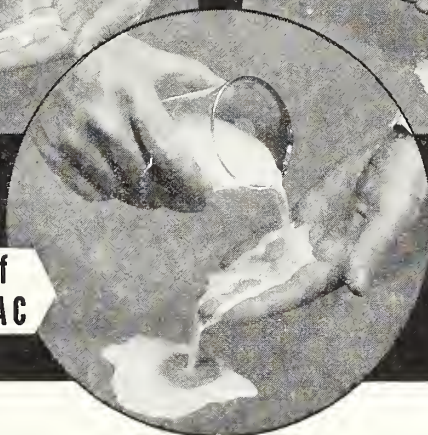
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Science In Your Life, by John Pfeiffer, science editor of News Week (60 cents. *The Macmillan Company, New York*), is a connected narrative of nature's secrets as they have been wrested from her to make the gadgets in the modern home. An excellent book by an expert in telling.

Physician's Fare, by C. G. Learoyd (\$2.00. *Longmans, Green and Company, New York*), is a collection of short stories introducing Dr. Graver, general practitioner. Slices of life as seen through a physician's eyes.

Occupational Diseases of the Skin, by Louis Schwartz, M.D., and Louis Tulipan, M.D. (\$10.00. *Lea and Febiger, Philadelphia*), is a complete monograph of systematized knowledge of industrial dermatology. An indispensable book for the library of allergist, dermatologist and industrial physician.

Love Problems of Adolescence, by Oliver M. Butterfield, Ph.D. (\$2.25. *Emerson Books, New York*), deals with struggles of young people as they attempt to make the often complex adjustment necessary for the attainment of successful love and marriage relationship. The author is well known for his lectures on the subject and his books on marriage. This book is the result of a study of over 1500 persons, ranging in age from 13 to 25 years. It is recommended to all who are interested in the problem, especially to adolescents themselves.

Injection Treatment of Hernia, Hydrocele, Gland, Hemorrhoids, Prostate Gland, Angioma, Varicocele, Varicose Veins, Bursae and Joints, by Penn Riddle, M.D., F.A.C.S. (*W. B. Saunders Company, Philadelphia*), includes all those conditions to which the injection method of treatment may be properly applied. Special emphasis is placed on indications and contraindications for the selection of cases for this type of treatment. An excellent text for any physician interested in sclerosing therapy.

Diseases of the Gall Bladder and Bile Duct, by Waltman Walters, M.D., and Albert M. Snell, M.D. (*W. B. Saunders Company, Philadelphia*), is a complete monograph on the subject by these authorities with help of eight other physicians from the Mayo Clinic, and as such should have a great sale.

Heil Hunger! Health Under Hitler, by Martin Gumpert, M.D. (\$1.75. *Alliance Book Corporation, New York*), is a clear indictment of Hitler's

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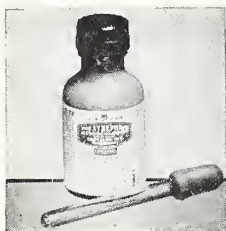


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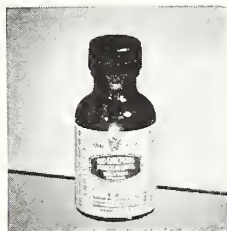


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Handbook of Orthopaedic Surgery, by Alfred Rives Shands, M.D. (\$4.25. *C. V. Mosby Company, St. Louis*), is a concise text brought up to July, 1939, by this second edition. The subject is divided into 24 chapters.

Medicolegal and Industrial Toxicology, Criminal Investigation, Occupational Disease, by Henry J. Eilman, Ph.D., Toledo, Ohio (\$3.00. *P. Blakiston's Sons Company, Philadelphia*), is put forth to make readily available the existing literature to facilitate the prosecution and defense in court. For this reason, it will be of use to many physicians. The lack of reference to service material makes its worth decidedly less.

Manual of Fractures, Dislocations and Epiphyseal Separations, by Harry C. W. S. deBrun, M.D. (\$3.00. *The Year Book Publishers, Inc., Chicago*), is written for the average surgeon and physician. The wide experience of the author and the simplicity and soundness of the text makes it an essential in the library of every physician who undertakes the care of these cases.

Medico of the Valley, by Joan Hamilton-Stockford (\$2.00. *Dorrance and Company, Philadelphia*), is the first novel telling the intimate story of the life of a bachelor country doctor. The locale is in New Brunswick, but the story is common to all parts of the continent. You will enjoy reading it as I have done.

Emergency Nurse, by Carlton Williams (\$2.00. *Penn Publishing Company, Philadelphia*), is a dramatic story of the supreme crisis in the life of a senior nurse who is accused of stealing morphine. Once before her college course had been cut short by a similar accusation by a dormitory mother. In the midst of it all, she is assigned to nurse a desperately sick woman who turns out to be the same house mother. All of this makes good material for a story and the author does well by it.

Fundamentals of Biochemistry in Relation to Human Physiology, by T. R. Parsons, M.A., of Cambridge (\$3.00. *Williams and Wilkins, Baltimore*), is the sixth edition of this highly esteemed elementary survey.

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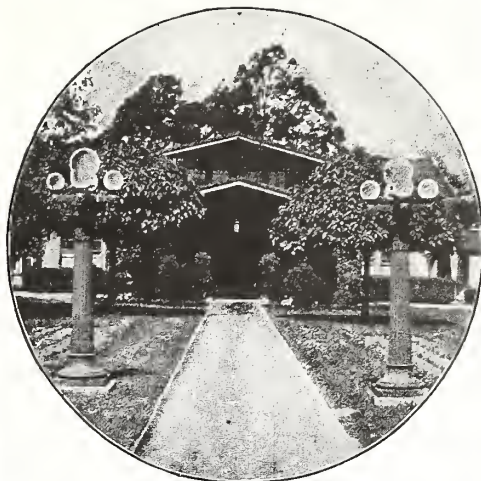
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The Anxiety Neurosis

HARRISON EVANS, M.D. and GEORGE T. HARDING, M.D.

THE problem of deciding what constitutes an anxiety neurosis* is not always easy. The reason it is so difficult in many instances is that anxiety is present in different psychiatric syndromes and unless all the presenting symptoms in every case are carefully noted a wrong diagnosis may be established. Anxiety neurosis is a definite entity and does not represent one step in the development of schizophrenia. It is true that neurotic and anxiety symptoms are present in some budding schizophrenias but if close observation is given, perhaps over a period of time, certain manifestations will be present that demonstrate the seriousness of the trend. It is not at all uncommon for patients suffering from an anxiety neurosis to go on for years—ten years or longer¹—without any evidence of developing a psychosis. Harris¹, in a follow-up study of 123 anxiety states after a period of at least ten years found that 38 were well; 60 were still suffering from an anxiety state; 9 had developed psychoses and 16 were dead. Of the nine who developed psychoses, seven were schizophrenic and two had recurrent depressions. In five of the schizophrenic cases a study of the notes made at the time makes the diagnosis of anxiety state very doubtful, and they probably represent a mistake in diagnosis.

An anxiety neurosis is characterized by an overwhelming and more or less constant apprehension, the cause of which the patient does not know. There is a dread, a sense of impending disaster, from which there is seemingly no

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escape. It is this factor that differentiates fear from anxiety. Fear is an emotional state caused by some definite outside incident which would provoke a similar feeling in the average individual. The outside incident gives a concrete cause for fear and by removing the provoking incident the fear subsides. Anxiety, on the other hand, is an emotional reaction motivated by no obvious or reasonable stimulus from without, but, instead, from some cause from within. "There is a disproportion between the intensity of the emotion and the occasion of its occurrence." (Jones)². The following is an example of anxiety, as related by a patient. He came in complaining of the "jitters". He said, "It started with a drinking spree—the usual Saturday night spree. I had

From The Harding Sanitarium, Worthington, Ohio.

*The term anxiety neurosis has been used to include the neurotic syndromes that are predominantly colored by anxiety. No effort has been made to differentiate anxiety state, anxiety hysteria or anxiety neurosis. If such an attempt were made in a paper of this scope, it would only be confusing.

indigestion and I thought I was going to die. Ever since I have been scared to death I am going to die. I will drive by a doctor's office. If he is in then I am all right." Repeated assurance by previous physicians had not relieved him of this unreasonable feeling.

The importance of anxiety in the practice of medicine in all fields has been emphasized by many medical writers in the last few years. However, credit must be given to the psychiatrists and especially to the psycho-analysts for explaining the cause of this symptom and separating it from the general run of neurotic complaints. The treatment of patients suffering from an anxiety state has been well described by Kerr, Dalton and Gliebe³, who say, "They are often shunted from one physician to another, and the sins of commission inflicted upon them fill many black pages in our book of achievement."

Because of the emotional tension associated with an anxiety neurosis, physical symptoms appear in a wide variety of clinical manifestations due to vegetative over-stimulation. Again drawing from a patient's vivid account of her feelings such manifestations are well illustrated. "I feel like I am going to die. I am afraid of dying all the time. It comes in spells. I get a feeling of floating away. My heart beats fast. I get numb in the face. It may start on the right side, jump to my feet and then back to my head. I have to go to the bathroom every few minutes and urinate, too. If I come to the city to shop, I will spend the morning in the rest room, my bowels moving, and there is trembling inside. I am convinced there is something wrong with my heart. I will stoop over and something will grab me in my chest and I can hardly get my breath. I have pains in my chest and down my left arm and I feel weak and funny. I think I am going to have an heart attack. I get sick at my stomach and my mouth gets full of canker sores. This dreadful distress in my throat and chest makes me feel like somebody is choking me to death. When I get real nervous I may get a skin rash."

It seems that the most remote structure is not isolated from the far reaching effects of the emotions. Because of these effects of the emotions the anxiety neurosis often presents a confusing clinical picture, which, in far too many instances, provokes the diagnosis of some "organic" disorder. It is our purpose to discuss the anxiety neurosis as it is seen in its various manifestations by the general physician and the specialist as well. For sake of clarity these manifestations will be discussed under the general systemic headings of: central nervous, cardio-respiratory, gastro-intestinal, genito-urinary and endocrine systems.

SYMPTOMS OF ANXIETY NEUROSIS

Nervous System.—Attention may be directed to the nervous system because of different com-

plaints. Headaches, dizziness, disturbed vision and paresthesias are a few of the more common ones. Symptoms simulating Meniere's syndrome have been reported². As confusing as such manifestations may be, a careful analysis of each will reveal its true nature. The headache is of a constricting nature, like a tight band, which becomes aggravated by heightened emotional tension. The sensation of dizziness is not a true dizziness in the neurological sense, for there is no sensation of whirling or rotation, which is distinctive of true vestibular disturbance. Complaints referable to the eyes are common. They may be one of the first things that bring the patient to the doctor. There are no objective findings to substantiate the sensation of blurring or strain, which often compels the patient to search continuously for satisfactory glasses with no avail.

Cardio-Respiratory System.—Cardio-respiratory symptoms are often spectacular and dramatic as well as very distressing to the patient. Palpitation, precordial distress with or without radiation, breathlessness, sighing and irregular and incoordinated respiration represent the usual physical manifestations^{4,5}.

The importance of cardiac symptoms in the neuroses has been stressed by White and Glendy⁶, who state that cardiac neurosis has assumed almost first place in their practice. They also point out that it is missed more than any other cardiac diagnosis. Bourne, Scott and Wittkower⁷ in a study of the psychological factors in cardiac pain, using 33 patients with heart trouble and no pain to compare with 57 with cardiac pain, found a higher percentage of psychoneurotic disturbance in cardiac pain patients than in cardiac patients without pain. Also they found the incidence of anxiety state and anxiety hysteria unduly high in angina innocence. A further interesting finding was that the heart sounds in neuro-circulatory asthenia or irritable heart are similar to those in mitral stenosis and because of this similarity the inexperienced examiner may be misled.

The relation of anxiety states to organic heart disease is an important problem both from the standpoint of causation and therapy. Dunbar, Wolfe and Rioch⁸ found that an anxiety neurosis was frequently an aggravating factor in cardiovascular disease picture. Wolfe⁹ in his studies on emotions and heart disease came to the conclusion that in no other cases are the psychic factors of such vital importance as those in which serious organic (heart) disease is present. A psychic factor may throw the balance against the organic state in spite of every known heart remedy. White and Glendy⁷ say that a "cardiac psychoneurosis" accompanying a myocardial infarction may be more difficult to treat than the myocardial infarction itself.

The sensation of breathlessness often causes over-respiration and Kerr and his associates³

have discussed fully the consequences. They point out that the resulting alkalosis causes clinical or subclinical tetany and this is responsible for many of the physical symptoms and greatly aggravates the anxiety.

GASTRO-INTESTINAL SYSTEM

The gastro-intestinal system is practically always disturbed in anxiety neurosis. The symptoms, as in the cardio-respiratory system, are variable, but they usually are manifested by diarrhea or constipation, passage of mucus and even blood, spasticity of the colon with cramping, spasms of the different sphincters and symptoms of peptic ulcer. Scarlett¹⁰ has stressed the fact that such symptoms may be misconstrued for chronic appendicitis, gall bladder trouble or peptic ulcer. Diamond¹¹ has discussed fully the importance of abdominal symptoms of psychological origin from the surgical standpoint. Woodyat¹² reported a case presenting symptoms of large bowel obstruction which showed on barium enema studies an obstruction 14 inches above the rectum. The obstruction disappeared the following day—the time set for surgery. A diagnosis of spasm was made. Afterwards a history was obtained which revealed there had been intense emotional conflict associated with financial affairs weeks prior to the attack, and that the crisis in the conflict came just a day before the spasm began.

Gastro-intestinal disorders reflect abnormal excitation of the vagus nerves or vagotonia. In most instances the disorder is "functional" and if the emotional state, which is the exciting agent, subsides, the intestinal disorder will likewise subside. In some instances the process may be too prolonged or other factors enter into the picture so that a reversible condition changes into an irreversible one. The end result may well be a peptic ulcer. To demonstrate the neural basis for gastro-intestinal symptoms, Cushing¹³ has shown that irritative lesions in the region of the vagal nuclei or the interbrain produced during surgery can cause gastric, duodenal or esophageal erosion with perforation. He says, "it may easily be that highly strung persons, who incline to the forms of nervous instability classified as parasympathetic (vagotonic), through emotion or repressed emotions, incidental to continued worry and anxiety and heavy responsibility, combined with other factors such as irregular meals and excessive use of tobacco, are particularly prone to have chronic digestive disturbances with hyperacidity often leading to ulcer—effects wholly comparable to those acutely produced by irritative lesions experimentally made anywhere in the course of the parasympathetic system from the tuberal center to its vagal terminals." He says further, quoting Christian, that gastric and duodenal ulcer has increased

four fold and that this increase can scarcely be ascribed wholly to improved methods of diagnosis. "It is not at all improbable that the prevalence, particularly of duodenal ulcer has something to do with the strain and stress of modern life." (Cushing).

Studies by Vonderahe¹⁴ might indicate the possible mechanism by which abnormal emotional states could produce persistent "organic" changes. He has found in the brain of patients who had had peptic ulcer circumscribed hemorrhages in the region of the autonomic centers. He believes these hemorrhagic areas are the result of vasomotor alterations in the cerebral vessels due to abnormal afferent stimuli coming from irritative lesions (such as peptic ulcer) in the stomach or duodenum. Therefore if an abnormal emotional state can, through excessive vagal stimulation, produce erosion of the gastric or duodenal mucosa, it seems, according to Vonderahe, that these irritating mucosal erosions can in time cause brain changes that result in a vicious circle which is no longer under the patient's control.

GENITO-URINARY SYSTEM

Diagnostic problems referable to the genito-urinary system are not so common in anxiety neurosis. There are certain symptoms that reflect the emotional tension such as frequency of urination, burning on urination or impotence. Gynecological problems may enter into the picture because of backache. One should be extremely cautious about ascribing such a symptom to a misplaced uterus or a small, innocuous fibroid.

ENDOCRINE SYSTEM

The relationship of the emotions to the endocrine system is still far from being fully understood. Nevertheless certain relationships have been established that are important. The emotions have quite a definite influence on sugar metabolism. Long continued worry and tension have been found to precede the onset of diabetes^{15,8}. In one of our own cases of diabetes the findings became much worse when there was pent up emotion especially resentment, requiring a careful dietary regime as well as increased insulin. But after a period of psychotherapy permitting an expression of this resentment, the glycosuria disappeared, the insulin could be greatly reduced and more freedom could be exercised in eating. Woodyat¹² cited a similar experience with a diabetic patient.

Mistaking an anxiety neurosis for hyperthyroidism is not an infrequent error. Different writers have pointed out the difficulty in differentiating the two and Owen¹⁶ and Billings¹⁷ have discussed the problem quite at length. They have distinguished them in the following way: the element of sympathetic overactivity is the same, but in the anxiety state there is no heat intoler-

ance, there is more or less chronic exhaustion, the appetite is capricious, the basal metabolism rate is variable depending much on the patient's reaction at the time of the test and the blood cholesterol is not decreased. In hyperthyroidism there are great drive and energy but quick exhaustion, the appetite is good but with a weight loss, the basal metabolism rate is constantly above the average for sugar and the blood cholesterol is decreased. Ebaugh¹⁸ stresses the value of anxiety as a differential point. In anxiety neurosis it is common but in hyperthyroidism it is uncommon.

PSYCHOLOGICAL FACTORS

Before engaging in a discussion of psychological factors one must say that there are different opinions among neurologists and psychiatrists as to the precise cause of the neuroses. Morton Prince¹⁹ has summarized it well in the following words, "Nevertheless, the main and important point is that neurologists and psychiatrists, while far from being in agreement as to the particular causal factors, mechanisms and processes that produce the symptomatic phenomena of the psychoneuroses, generally recognize that the explanation of the latter is to be found in the conflicting instinctive attitudes, strivings, impulses and reactions of human personality."

If one spends any considerable time with patients suffering from an anxiety neurosis, it soon becomes evident that underneath the symptoms, lie unhappiness, discontentment and frustration. The patient will deny this at first because he does not recognize them himself, for they have been pushed down, repressed into the unconscious, in an attempt to overcome them. But the forces of repression have not been strong enough to completely subdue the instinctual strivings which underlie the unhappiness or frustration. Therefore the struggle rages but beyond the vale of conscious recognition. The anxiety represents the patient's fear of being overwhelmed by the repressed or forbidden strivings. The physical symptoms are the result of the emotional tension associated with the conflict, which finds a perverted outlet through the automatic nervous system.

Because thwarted sexual urges or general sexual mal-adjustment is so often at the bottom of anxiety symptoms, this problem should always be investigated. Feelings of hostility or resentment have been found to be very important in the genesis of anxiety, too, and this likewise should be thoroughly gone into. One or both of these factors can be said to be the cause of the anxiety neurosis; or putting it another way, anxiety neurosis will not be present when these two important phases of emotional life are finding normal, unsuppressed expression, either directly or in the form of satisfactory sublimation.

TREATMENT

Treatment can be divided into two types: medicinal and psychiatric. Medicinal treatment has its limitations but it is often indispensable in the management of these problems. Kerr and his co-workers⁴ have stressed how a state of clinical or subclinical tetany is frequently present due to alkalosis as a result of hyperventilation. By administering a mixture of CO₂ and O₂ in proportions of 30 and 70 per cent respectively and also ammonium chloride, as much as one gram in capsules three to six times daily, along with an acid ash diet, the tetanic symptoms are relieved and psychotherapy can be handled more easily. Sedatives, especially small doses of phenobarbital or bromides, will help in ameliorating the tension. However, these must be used cautiously. Menninger²⁰ has stressed the fact that sedatives or other physical therapy (in contradistinction to psychotherapy) must not lead the patient to feel that some physical disorder is the primary trouble. Tincture of belladonna may help the spastic bowel when given in dosage of 10 minims three times daily. A bland or smooth diet is indicated until the more acute intestinal symptoms subside. But Alvarez²¹ has urged that adequate food content be given, for so many of such patients are underweight and mal-nourished. Heat to the abdomen in the form of fomentations or infra-red radiation often gives relief for intestinal cramping. Exercise, in spite of complaints of fatigue, is helpful. At night a neutral bath for 30 minutes or longer gives more relief to many patients than chemical sedatives.

From the standpoint of psychotherapy there are several important factors. The first step is the taking of a careful, detailed history allowing an hour or two for the first interview. During this time the patient should be permitted to talk freely. Following the history a careful physical examination with pertinent laboratory work should be done. This is necessary not only to rule out any possible organic disease, which may be present in conjunction with the anxiety state or be aggravating the neurosis, but such a procedure establishes confidence in the physician which is necessary for future psychotherapeutic measures. After this an understanding investigation of the patient's life is needed. Here the physician's attitude means much. A preaching, authoritative attitude should be avoided. A neutral position should be maintained. The patient should be led to do the talking with timely questions and explanations to bring out or clarify certain important points. The ultimate goal in such a psychotherapeutic program is to show the patient the role emotions play in his physical symptoms and to help him find the cause of the conflict and emotional tension. This entails bringing back to conscious recognition factors that have been repressed long before. When this

has been done it is necessary to encourage and give aid in bringing about a satisfactory solution of the problem. At all times it is important to make the patient take the initiative while the physician stays in the background, using his influence when it is needed.

It would be wrong to have the reader infer that all cases of anxiety neurosis require prolonged treatment. This is not so. At times the treatment may be as spectacular as a surgical procedure. A word of explanation, a correction of false ideas²², and reassurance can bring such gratifying results that the physician may well be surprised. Such results are especially apt to occur if an easily changed situational condition has brought about or precipitated the neurosis.

CONCLUSION

Because it is necessary in an article of this type to show the physical effects of emotions, a distorted idea might be gained. But it does seem that the emotions in relation to bodily symptoms can scarcely be overstressed. Nevertheless one must remember that organic conditions can be present along with an anxiety state with the latter masking the organic symptoms²³. And it is true that certain diseases can precipitate an anxiety neurosis in an individual already emotionally unstable. The only safe attitude on the physician's part is to approach the patient and his problems with an open, unbiased attitude. One should not feel that just because emotional symptoms are present that an "organic" lesion is not also present. Likewise one should not feel when a definite physical lesion is present that emotional involvement is precluded. Every patient must be treated as an unit, body and mind as one. One reacts on the other. At one time one may predominate; at another time the other. Their interaction gives the picture of the personality that is in need of treatment.

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Comparative Study of Tuberculin Patch Test

The disadvantages are: first, the allergic reaction of some individuals to certain components of the adhesive tape. This may be true, but it did not invalidate a single test in our group and occurred in only three children. Second, it is claimed in athletes, and in others who perspire heavily, that the tuberculin may be diluted. It must be remembered the patch test is primarily intended for children; its accuracy with adults is yet to be determined. Third, it is said by some, the test may come off prematurely or be removed by an inquisitive individual. This is a theoretical disadvantage and while a few of the younger children did pick at the test and several inadvertently became wet, the number was so small it may be disregarded. The objection is also raised that in contradistinction to the accurate measured amount of tuberculin administered in the Mantoux the dosage is uncertain in the patch test. Those highly skilled in tuberculin testing unquestionably can administer an accurate amount of tuberculin intradermally; however, it is not easy for the physician, who only occasionally applies the Mantoux, to give the injection intradermally—especially when making the test on large groups or on an obstreperous child. An improperly administered Mantoux is not only dangerous, but worthless. This is not true of the patch test, since it can be applied by an unskilled person with great accuracy and no untoward reactions were experienced on any of the children examined.—Donn J. Barber, M.D., Greeley, Colo.; *Rocky Mountain Medical Journal*, Vol. 37, No. 4, April, 1940.

Cancer of the Body of the Uterus

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CARCINOMA of the body of the uterus is commonly adenocarcinoma. It usually develops rather slowly, is relatively benign, and the curettings simulate the pulsatous products of gestation or of polypoid endometrial hyperplasia. A more solid, infiltrating type of growth is sometimes found and offers a much more serious therapeutic problem.

Cancer in this region is encountered much more frequently than formerly. The ratio of frequency of cancer of the body of the uterus to that of the cervix has gradually increased and is now given at one to eight. In the opinion of some authorities even this figure is entirely too low. Graves in a personal communication stated that during recent years, incidence of carcinoma of the body of the uterus in his clinic practically equalled that of the cervix. Huron Road Hospital records show 16 corpus uteri and 34 cervical cancers, a ratio of one to two plus.

Buber reported that 10 per cent of all pelvic cancers originate in the body of the uterus, that in multipara, cancer of the body is more common than cancer of the cervix. Gilbert observed carcinoma of the body in a girl of 11 years. He was able to find only five other reported cases of corpus cancer in girls under 15 years of age.

Cancer of the corpus may occur during the menopause, but it is much more common after the termination of menstruation, between the ages of 50 and 60.

ETIOLOGICAL FACTORS

The growth and development of the endometrium is controlled largely by the anterior lobe of the pituitary gland, and the conclusion has been drawn that hyperactivity of the pituitary gland may cause hyperplasia of the endometrium.

Hofbauer suggests that continued over stimulation of the pituitary gland might give rise to cancer of the corpus; Taylor wondered if hyperplasia of the endometrium should be considered a precancerous lesion, but his careful studies show that it is a forerunner of carcinoma only infrequently. Taylor advises the use of radium in the treatment of hyperplasia occurring at or after the menopause. Such therapy is indicated to stop bleeding and for its prophylactic effect.

PATHOLOGY

In its most common, most benign form the growth arises in the mucous membrane and develops into a loose meshwork of spongy glandular tissue projecting into the cavity of the uterus,

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with limited tendency to invasion of the wall of the uterus.

Sometimes the tumor forms papillary masses, again a more diffuse adenomatous growth is encountered.

The more solid form of adenocarcinoma resembles the infiltrating adenocarcinomatous growths which are encountered elsewhere. In many instances, the invading masses of cancer simulate, both grossly and microscopically, the solid squamous cell growth of the cervix.

Mixed tumors of the body of the uterus are not rare. Ewing describes adeno-acanthoma comprised of squamous and glandular tissues, and adenomyocarcinoma. Metaplasia of tissue occasionally results in an infiltrating squamous cell type of cancer. Although this type of tumor is supposed to be rare, three such cases were found in the service at St. Luke's Hospital, New York.

The relatively slow growth of corpus carcinoma results in diffuse enlargement of the body of the uterus, the cavity of which is filled with sponge-like or large rounded masses; the more solid, more rapidly growing tumors tend to much greater infiltration of the wall of the uterus. The uterus enlarges moderately and seldom attains a size greater than that of a three and a half months pregnancy; the musculature sometimes undergoes marked hypertrophy. In consistency, in color and in blood supply, it may resemble a simple fibroid, or the softened vascular organ of pregnancy.

Stacy calls attention to the frequent coincidence of uterine myomata and carcinoma of the fundus; myomas and polyps apparently predispose to the development of fundus cancer.

Metastases are unusual although Sampson records the frequent incidence of continuous extension of the growth into the lymphatics and venous sinuses of the uterus, as well as secondary carcinoma of the tubes and ovaries arising from permeation of the lymphatics and from cancer emboli. He finds a frequent incidence of superficial carcinoma in the mucosa of the tubes, in their fimbriae and on the ovary and peritoneum of patients with carcinoma of the

body of the uterus. Cervical and vaginal implantations may occur.

Distant metastases are encountered by pathologists in one-third of the cases (Kaufman) but are relatively rare in the experience of clinicians.

DIAGNOSIS

The diagnosis is based upon abnormal bleeding from the uterus in a patient of cancer age, together with evidence obtained from intra-uterine examination. The rules applicable in the diagnosis of cancer of the endocervix are equally valuable here—A large percentage of so-called "cancers of the body of the uterus" really have origin in the endocervix and extend secondarily upward into the uterus.

In patients well beyond the menopause diagnostic curettage is often unnecessary. Profuse bleeding from an organ of generous size is highly suggestive. The additional evidence of passage of endometrium like tissue upon dilatation of the cervix may suffice. Free bleeding upon palpation of the interior of the uterus with a sound (John Clark test) is pathognomonic of cancer provided pregnancy and necrotic polypoid fibroids can be excluded. Curettage, if required, must be performed with caution; the uterus is often very soft and easily perforated. The use of the curet is followed by low grade acute endometritis in a considerable percentage of cases; if hysterectomy is required it should be performed immediately, before possible development of infection. Delayed operation after curettage should be postponed at least three weeks, until subsidence of the inflammation.

Histologic examination usually reveals easily recognizable adenocarcinoma, with characteristic atypical configuration of the gland acini. Some acini present a normal structure whereas others are typically carcinomatous with many layers of epithelium, polymorphism of cells, and abundant mitotic figures. Blocks of tissue prepared from the site of penetration of the growth into the uterine wall reveal nests of cancerous glands invading the uterine musculature.

The microscope does not always yield distinctive evidence. Occasionally one encounters gland like masses of endometrium without definite malignant changes. At such times, in differentiation from **benign hyperplasia of the endometrium**, much weight attaches to the fact that cancerous growths yield an unusually abundant amount of tissue on curettage.

Differentiation from **retained products of conception** gives rise to occasional uncertainty in the operating room. The age of the patient may be helpful, although we know that islands of placental tissue may remain viable in the wall of the uterus for a period of several years. Microscopical examination is usually conclusive.

Uterine polyps of large size and pedunculated fibroids produce excessive amounts of curetted

tissue. The histologic examination of an adenocarcinoma may fail to reveal unquestioned evidence of malignancy, thus adding another confusing item. In doubtful cases, the patient most often has a cancer. **Diffuse adeno-myoma** of the uterus simulates adenocarcinoma on palpation and also at operation, and occasionally is difficult to differentiate histologically. The infrequency of sarcoma makes this lesion of lesser importance in differential diagnosis; curetted pieces are usually red-white, brain-like masses.

TREATMENT

Like cancer in other locations, early diagnosis is of great advantage. If the office examination is not conclusive in every case of unusual uterine bleeding then the patient should be admitted to the hospital where the combined facilities of the surgery, laboratories and consultation services are available.

After the diagnosis is made and the cancer typed as to progress and degree of malignancy, then the plan of treatment should be decided upon and adhered to throughout. If a hysterectomy is decided upon, then it must be a complete panhysterectomy. The Vertheim operation and other radical procedures may be a work of art in the hands of the master surgeon, but to those of lesser skill, it seems unreasonable to attempt, because the mortality is high and the morbidity is pitiful.

The present day trend of thought is away from the old concept that cancer of the body of the uterus is not susceptible to radiation therapy and that operative removal is the only acceptable treatment. There is a continuous increase in the number of gynecologists who use radiation therapy for corporeal cancer. The results obtained are encouraging.

William P. Healy states: Carcinoma of the corpus has always been regarded as a disease to be treated by surgical removal of the uterus. However, in many instances it occurs in women of advanced years, poor in health and often suffering from arteriorenal damage, diabetes or greatly over-weight, so that the risk of hysterectomy is so grave we have to turn to radiation for help. Radiation consisting of radium within the uterine cavity and x-ray externally is then gradually creating a definite field for itself. A field which acquires much for the welfare of the patient and is a distinct help to the surgeon.

Burnham concludes that "radiation offers a method of treatment for operable cancers of the body of the uterus comparable to the best surgical treatment in its permanent results and obviates, to a large measure, primary mortality. He believes that preoperative radiation does not increase the hazards of operation and that post-operative radiation would seem to be a logical procedure in many cases." Burnham reports 55 per cent five year cures. Healy further says,

"End results of treatment by hysterectomy alone are very poor, not over 15 to 20 per cent will survive five years, whereas, when adequate treatments with radium and x-ray precedes operation, the percentage of cures may reach 60 to 85 per cent." In other words, it is important for us to know that 50 per cent of all cases of cancer of the body of the uterus have a cell structure that is highly malignant but is quite radio sensitive. If we persist in treating this variety of cancer of the uterus by hysterectomy alone we will fail to cure it, but if we resort to radiation before operation the results will be happier. He gives figures from Memorial Hospital to substantiate this.

Doctor Pomeroy states that carcinoma of the uterine cervix and carcinoma of the uterine fundus are two distinct diseases. Carcinoma of the cervix is usually of the squamous cell variety and is apt to metastasize early owing to the presence of many lymphatic vessels close to the growth. Carcinoma of the fundus is usually an adenocarcinoma and is usually confined, for a long time, within the limits of the uterine body where the lymph supply is not so great and where metastasis is late.

In the past most cases of carcinoma of the uterine fundus were treated by hysterectomy. An occasional case, inoperable on account of the poor general condition of the patient, was treated by irradiation. The results in these cases in some large clinics were as good if not better than hysterectomy alone. This has led to the treatment of these cases by irradiation (radium and x-ray) alone in some clinics. Probably the best method of treatment is a combination of irradiation and surgery. The determination of the degrees of cell differentiation has much more practical importance than in carcinoma of the cervix. If the growth is well differentiated adenocarcinoma and the patient is a good operative risk, the growth may be treated by hysterectomy alone. If microscopic examination shows an undifferentiated type of tumor, irradiation alone is probably the method of choice. In cases showing partial cell differentiation, preliminary radium treatment followed after eight or ten weeks by a panhysterectomy is the method of choice. If examination of the uterus after removal shows that the growth has not been well controlled by the radium, x-radiation may be given later.

The statistics of Doctor Pomeroy in carcinoma fundus uteri are as follows:

Radium treatment alone in operable cases—29 per cent, five year cures.

Radium treatment followed by hysterectomy—42 per cent, five year cures.

For the relief of pain in incurable corpus cancer after morphine, etc., it may be expedient to perform extensive pelvic sympathectomy or chordotomy.

We wish to give a brief resume of two cases, which have been diagnosed and treated in the hospital during the last fortnight.

Case 1—Age 49, single, supposedly in menopause. Brother died of cancer of rectum, mother died of tuberculosis of spine. Flowing since September last. Office observation showed gradually enlarging uterus to size two months pregnancy. Delayed entering hospital for fear, later a severe cold. D & C under gas. Cervix smooth, dilated easily. Bleed freely from dilatation and curetting with dull curett. Large amount of tissue fragments, resembled D & C for retained secundines of early pregnancy.

Pathological report: Adenocarcinoma. Two plans of treatment were presented to the patient. Plan 1—Radium with hysterectomy, to follow in eight or ten weeks. Plan 2—Heavy dose of radium, no operation. Plan 1 was chosen, radium treatment was given, patient sent home. Return for hysterectomy.

Case 2—Age 59, nullipara, menopause age 35. Has been having a showing of blood for past few weeks. Patient in poor physical condition with advanced arterial disease and other ailments. Office examination unsatisfactory and unconvincing. Admitted to hospital, D & C. Cervix smooth, partial atresia canal, dilated with difficulty, sound entered to depth of four and half inches, bleed rather freely, small pieces of tissue obtained with dull curett.

Pathological report: Adenocarcinoma. Plan of treatment, heavy radium treatment, patient sent home. Later x-ray.

Grade 1—Superficial papillary adeno malignum.

Grade 2—Adenoma malignum.

Grade 3—Adenocarcinoma.

Grade 4—Diffuse (anaplastic) carcinoma.—Newell and Crossen, Washington University, St. Louis.

Schonlein-Henoch's Purpura

A careful history as to sensitivity to foods or animal-dander, attacks of asthma, hay fever, urticaria or angioneurotic oedema will often furnish the clue necessary to put the physician on his guard. A history of a chronic wheezy cough should be considered as possibly being on an allergic basis. Information should be sought relative to allergic phenomena in other members of the family. The past history should be carefully scrutinized for evidence of previous abdominal crises with or without acute arthritic manifestations going as far back as childhood in the case of adults. A history of similar attacks in the past, starting in childhood with long periods of intermission is suggestive. Inquiry should be made regarding the relation of attacks to the taking of drugs. As was stated above, quinine, ergot, some synthetic hypnotics such as sedormid and possibly other drugs can produce purpura with abdominal symptoms.—Julian B. Herrman, M.D., New Haven; Conn. S. Med Jour., Vol. 4, April, 1940.

Exercise in Tuberculosis

A Plea for Conservatism

WILLIAM J. HABEEB, M.D.

IN the treatment of tuberculosis the question of exercise occupies a place of primary importance. There is not a great deal written on the subject in the current literature. One would think it a settled issue. There is, nevertheless, a wide divergence of opinion among tuberculosis physicians concerning exercise in the treatment of tuberculosis. Given a case of tuberculosis, it would be hard to find two specialists who would agree on the time to start exercise and the amount to be prescribed. More often than not the physical makeup of the sanatorium dictates the time to start exercise and the amount to be prescribed. By the same token the size of the nursing staff may dictate the exercise given and in such cases the amount of exercise is inversely proportional to the number of nurses available under a fixed budget. In a sanatorium where there is a shortage of nurses the patients will have to do more for themselves.

In the cottage type of sanatorium, the patients who go to a central dining hall for meals will use more energy and get more exercise for the sake of meals than in a sanatorium built entirely under one roof.

It is readily seen the amount of walking exercise required to go to meals is greater if the cottage sanatorium is built on uneven ground or a hillside. Contrast with that the little effort required in going to meals in a single unit sanatorium under one roof where the patient need not go out of doors nor for that matter get fully dressed.

WHAT CONSTITUTES EXERCISE?

No universal definition can be given for exercise as applied to the treatment of tuberculosis. Tuberculosis specialists with widely divergent views on the use of exercise in the treatment of tuberculosis differ on what constitutes exercise. Those who believe in strict bed rest will consider every activity of the patient short of resting quietly in bed as exercise. Sitting up in bed, writing letters, drawing, knitting and so on are exercise by that standard. By another standard such activities are not considered exercise at all. Activity merits the designation of exercise only after the patient is fully clothed and is going for outdoor walks. Those are the extreme views, of course. The extremes are practiced in occasional sanatoria but the majority steer a middle course.

Two patients with minimal tuberculosis may

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react differently to the same amount of exercise. One patient may derive benefit from exercise while the other is harmed. In one it may produce a pleasant tired feeling which is relieved promptly by a short rest period. In the other there may be a severe fatigue which persists. Any activity which produces severe fatigue should not be persisted in. The fatigue is a symptom of overstrain and indicates that the body needs more rest. To continue a given amount of exercise no matter how little day after day in spite of marked fatigue is to court an increase in the tuberculosis.

Mild exercise for one patient may be strenuous exercise for another even though the patients may have comparable disease.

TIME FOR EXERCISE

When should exercise be prescribed? How fast should it be graduated? In every case of tuberculosis those two questions come up sooner or later. Every case must be individualized. A blanket set of rules will not cover all cases. No two cases of tuberculosis are alike. It is obvious that patients with malaise, fever, rapid pulse and marked fatigue should be on bed rest. Malaise, fever, rapid pulse and easy fatigue are constitutional symptoms and indicate a toxic systemic reaction to the disease. Any patient with those symptoms whether he has tuberculosis, influenza, carbuncle or what not, should be in bed. Every patient should be treated symptomatically regardless of how little his X-ray shows, how low his sedimentation rate is or how negative his sputum test is. Rule number one then is to treat constitutional symptoms by strict bed rest.

A few specialists treat every patient regardless of symptoms or lack of symptoms with strict bed rest. That is an extreme method of treatment. The same specialists do not allow their patients to raise their arms above their heads or even shake down their thermometers for fear of producing a spread of the disease. Such beliefs are fantastic and not based upon facts.

Apparently comparable cases of tuberculosis which have practically the same amount of disease by X-ray, seldom have the same symptoms to the same degree. Many minimal cases have no cough or expectoration but may have marked fatigue, loss of weight and appetite. A comparable group of minimal cases by X-ray may have cough and expectoration but otherwise feel fine. One must distinguish between local and constitutional symptoms in tuberculosis just as one must distinguish between local and constitutional symptoms if one treats a boil. A boil produces pain, swelling, redness and local heat and can be treated as a local affair, usually. But if the patient develops malaise, fever, and loss of appetite the boil ceases to be a local affection and the constitutional symptoms demand the patient be put to bed and adequate systemic measures be used. The same holds true in tuberculosis even though many sanatoria have lost sight of such a fact. Local symptoms and constitutional symptoms have a far different meaning, and any patient with constitutional symptoms should be on fairly strict bed rest until all constitutional signs and symptoms subside and the disease becomes stabilized. After that he may be allowed a graduated amount of exercise if other signs are favorable.

Patients with minimal disease and positive sputum whether they have cough or not should be in bed also. There are a few patients who raise positive sputum without coughing. They believe that the sputum raised is not sputum in the true sense unless they cough it up and many must be coached in order to produce a specimen of sputum for examination without undergoing gastric lavage. Exercise in such patients should not be permitted until a sufficient period of bed rest or a collapse measure in addition to bed rest has converted the sputum and given the disease time to become stabilized.

No patient with active tuberculosis regardless of the stage of the disease or the presence or absence of symptoms should be allowed to indulge in any activity to the point of fatigue.

AMOUNT OF EXERCISE

In most sanatoria the amount of exercise is well regulated and the patient's activity is kept within safe limits. After the patient leaves the sanatorium the advice concerning exercise is frequently disregarded. Especially in those instances where the economic status is such that the patient must work to live, are excesses frequent. For the low income group a rehabilitation program covering a period of months is absolutely necessary. Arrested tuberculosis is not healed nor cured tuberculosis yet patients are discharged from sanatoria as arrested cases whose only alternative is to go to work in order to support themselves. A full time job is too much of a strain for disease classified as arrested. The phy-

sical adjustment necessary for the transition from sanatorium routine to full time work is great. It is so great that relapses are frequent in those who attempt it. Undue strain is to be guarded against by gradual month to month increases in the amount of activity, whatever it is. Fatigue should be a danger signal and no activity should be carried to the point of fatigue.

The greatest necessity in the field of tuberculosis at the present time is a rehabilitation program.

EXERCISE EXTREMISTS

There are a few chest specialists who believe that rest is not an entirely pertinent factor in the healing of tuberculosis. Such men allow their patients an amount of exercise almost equivalent to the regimen of one on vacation. Such an indictment has been made concerning the exercise routine of their patients. The mental attitude of their patients receives as much attention as their pulmonary condition. The feeling seems to be that the mental state of the patient is so important in the healing of tuberculosis that it is justifiable to allow a great deal of activity in order to keep the patient from becoming introspective. The relationship between a patient's immunological reaction to disease and his introspectiveness has never been proved and has no factual basis. Rest will heal tuberculosis. A healthy mental outlook without physical rest is not sufficient for the healing of tuberculosis.

Another theory of the exercise extremists is a fatalistic one which also calls on biological immunity and resistance for support but here again the facts do not support the theory. The extremists justify the exercise in the mistaken belief that a patient with average resistance will heal his tuberculosis even on exercise while no amount of bed rest will cure a patient who doesn't have average resistance. The idea is truly fatalistic. No one doubts that some patients die regardless of good treatment. Every physician has seen patients who recovered from illnesses without medical care of any kind. He also can recall instances where every possible care and consideration was rendered to patients who died in spite of the best treatment but does that justify his shrugging his shoulders henceforth and saying, "Why do anything? Regardless of the treatment the patient will die or cure himself." Is that not fatalism? Does any physician dare practice medicine today believing he cannot alter the course of disease? Conservatism in exercise is necessary for a favorable result in the majority of cases of tuberculosis. Rest is the greatest single factor in the healing of tuberculosis exclusive of collapse measures.

INFLUENCE OF COLLAPSE THERAPY

There is no doubt that the general use of collapse measures, such as pneumothorax, in the

treatment of tuberculosis has changed the course of the disease in thousands of cases. Patients with good collapse of their diseased lungs get back on their feet earlier than they did in the past, before the advent of collapse measures. That is as it should be. The improvement is often marked and rapid following such measures, but should the patient be put back on his feet immediately? That seems to be the general trend. In some clinics patients are not even put on bed rest during the pneumothorax induction period.

Does an immediate satisfactory collapse of a lung, which is sufficiently diseased to require pneumothorax, mean the patient is healing his disease? The answer is no. Collapsed disease is not healed disease. Spreads do occur in well collapsed lungs. Tuberculous empyema frequently occurs with apparently satisfactory pneumothoraces. New disease often occurs in the contralateral lung. Patients with well collapsed fresh disease should not be allowed exercise immediately no matter how well they look or feel. Conservatism is necessary for the best results. Collapse measures are not a substitute for bed rest in tuberculosis. They should supplement it.

SUMMARY

1. A plea is made for the conservative use of exercise in the treatment of tuberculosis.
2. Conservatism is necessary for a favorable result in the majority of cases.
3. Collapse measures should be looked upon as supplementary to, not as a substitute for, bed rest.
4. A well regulated rehabilitation program will prevent relapses in many cases.

Volvulus: A Case Report

JAMES J. MAREK, M.D.

WHITE male patient, aged 28, a truck driver, was admitted to surgical service at 6:00 P.M., complaining of abdominal pain. The pain was located in the right lower quadrant and was cramp-like in nature. There was no radiation to the thighs or back. The patient gave a history of having eaten some chili in the morning which was followed at 11:00 A.M. by the onset of pain. Vomiting had occurred twice but there was no history of previous attacks of abdominal pain, and no associated diarrhea or urinary symptoms.

Examination of the abdomen revealed moderate rigidity but no distention. Tenderness was most marked approximately two fingers to the right of and at the level of the umbilicus. Pulse was fairly rapid, and the temperature was 100 orally. White blood count was 10,000 with a differential

showing 90 per cent neutrophils. Urine examination was negative.

The diagnosis of an acute abdomen was made probably due to an acute appendicitis. Intestinal obstruction was eliminated due to the acuteness of onset and the character of vomitus which contained merely stomach contents.

A right paramedian incision was made extending one inch from the umbilicus to two inches above the pubic ramus. On entering the abdomen a portion of the small intestine was exposed. This was deep blue in color and markedly injected. A loop of intestine was then seen which divided into two branches. One was followed and led up to the umbilicus. This was freed from the umbilicus and on exposure was found to be a diverticulum attached to the ileum approximately eight inches from the ileocecal junction. The loop of intestine which was visualized earlier was thus freed and measured approximately twelve inches in length. This loop was turned approximately 180 degrees thus relieving the torsion on the mesentery and treated with moist heat. Reconstruction of the condition showed that the loop of ileum had twisted on itself forming a volvulus. This loop had forced its way posterior to the adherent diverticulum thus strangulating. The diverticulum was excised and the stump inverted.

The cecum was then exposed and the appendix visualized and removed. The abdomen was then closed.

Laboratory examination of the specimen revealed it to be a Meckle's diverticulum approximately five inches in length.

The post-operative course of the patient was uneventful being managed with fluids and sedation. The patient was discharged eleven days after admission in good condition.

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Some Factors Concerning Lower Resistance

Some of the factors concerning the nature of "lower resistance" are gradually being demonstrated by experimental methods. Thus it has been demonstrated that growing children with a negative nitrogen balance, often due to low protein diet, withstand infection poorly. And conversely animals on a high protein diet withstand toxic substances such as chloroform and arsenamine much better than those on a low protein diet. In the light of such evidence, the note in the history concerning "the undernourishment of the child due to the type of his diet" may have an added significance. Children with congenital defects are often allowed injudicious and even detrimental indulgences.—Harry L. Reinhart, M.D., Columbus, Ohio.

Early Diagnosis of Syphilitic Aortitis

JOHN W. MARTIN, M.D.

THE diagnosis of the late manifestations of syphilitic aortitis is recognized. The recognition of this condition in its earlier stages, however, is subject to question. It is the purpose of this paper to examine the validity of the existing diagnostic criteria in determining the existence of syphilitic infection of the aorta before the appearance of the late signs of insufficiency and aneurysm.

The pathologists tell us that between 70 and 90 per cent of all late syphilitic cases show evidence of infection of the aorta at autopsy^{1,2,4,5}. We diagnose about 10 per cent of these. Granting that a good percent of these cases represent only microscopic involvement, it would still seem that more cases might be recognized clinically. The literature gives a wide range of opinion on the possibility of making the diagnosis at this uncomplicated stage and different criteria for making the diagnosis are mentioned.

Moore, Dangle, and Reisinger⁴ have very concisely set down diagnostic points useful in the recognition of early aortitis. It is their opinion that a presumptive diagnosis of the condition may be made when any three of the following conditions are present:

1. Evidence of dilatation of the aorta by X-ray and fluoroscope.
2. Increase in the supracardiac dullness.
3. History of circulatory embarrassment.
4. Tympanitic quality of the aortic second sound.
5. Progressive cardiac failure (in the absence of other cause).
6. Substernal pain.
7. Paroxysmal dyspnoea.

The presence of a positive Wassermann might also be mentioned as a diagnostic point, but it must be remembered in this connection that in about 25 per cent of the cases of syphilitic aortitis proved at autopsy, the reaction is negative^{4,6,7,8,9}.

Moore was able to follow 115 of his cases after a two-year period¹¹. In those in which a presumptive diagnosis of aortitis had been made on the basis of the above criteria, it was found that the course of the disease had confirmed the original impression in 19 per cent of the cases

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and in another 36 per cent, the diagnosis seemed reasonably correct.

Maynard¹² using the same diagnostic points found aortitis in 41 per cent of the syphilitic patients studied. He found further that about 25 per cent had involvement in the first 10 years after the chancre.

Wile and Snow¹³ found chest pain to be present in 39 per cent of their cases of aortitis and a tympanitic A2 in 72 per cent.

The X-ray examination is repeatedly emphasized as one of the most important methods for the early diagnosis of syphilitic involvement of the aorta. In fact, one report states that aortitis may be diagnosed in 90 per cent of the syphilitic cases by this means¹⁵. Other authors, while more conservative in their statistics, believe that with increased pulsations of the aorta and irregular dilatation, involvement may be suspected at an early stage¹⁶.

On the other hand, however, there are many who feel that it is almost impossible to make a positive diagnosis before the development of late complications. Keefer and Resnik¹⁴, for example, in a study of 60 autopsied cases of simple syphilitic aortitis, found none with a history of paroxysmal dyspnoea. It has been pointed out by various authors also that chest pain does not occur in the early stages of aortic disease^{1,17}. In one series of ten posted cases¹⁰ there was complete absence of pain even with partial occlusion of the coronary orifices. In a review of the cases at the Massachusetts General Hospital, Paul White¹⁸ states that in his experience, syphilitic involvement of the aorta cannot be positively diagnosed until the presence of complications such as aneurysm and aortic insufficiency.

For a better understanding of such a disputed question, it may be helpful to review briefly the pathological picture of uncomplicated aortitis.

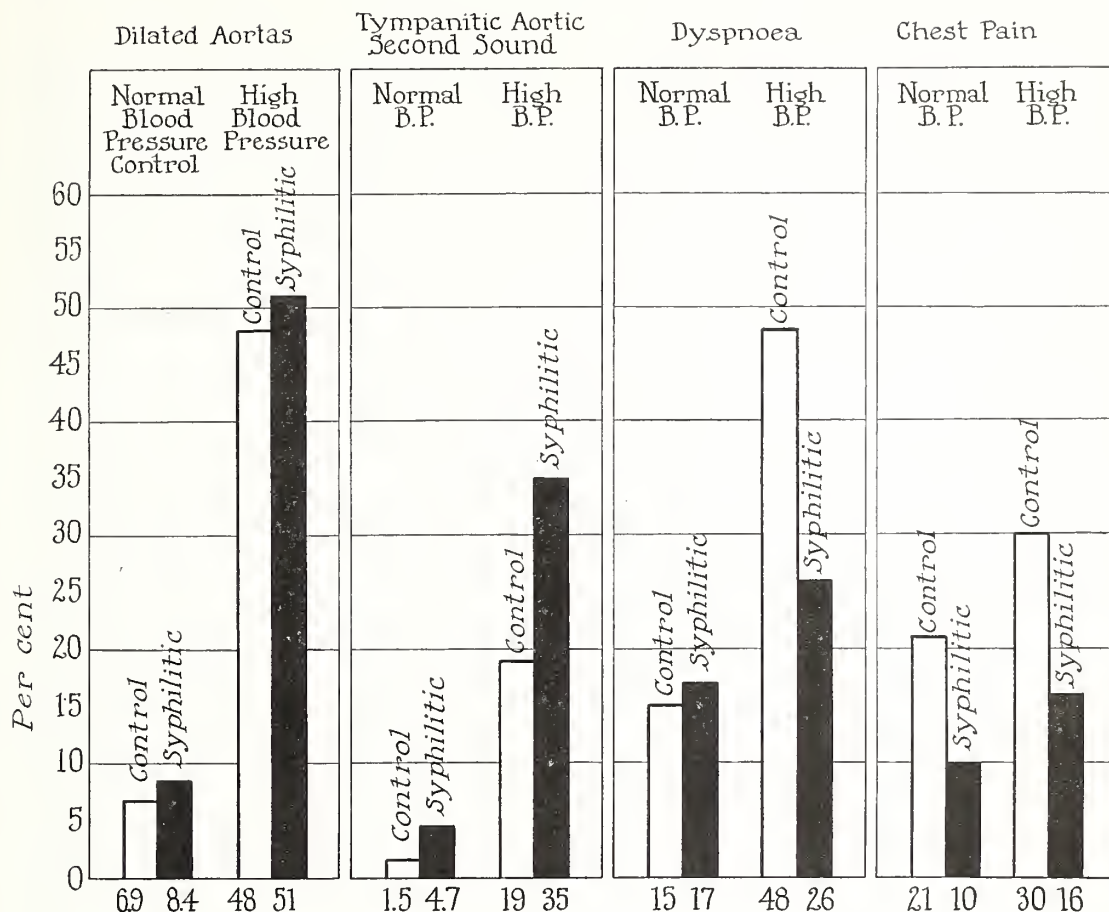
It is assumed that there is an early spirochetemia in the syphilitic infection with particular involvement of the vessels of the adventitia of the aorta. Microscopically, there is a

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CHART 1
STUDY OF SYPHILITIC AORTITIS.



great deal of infiltration of lymphatic and plasma cells about the vessels^{9,19,20}. (The degree of this infiltration is proportional to the duration of the process and depends little on the treatment)²¹. Later in the disease, due to interference in the vaso vasorum of the aortic blood supply, there is degeneration of the media with consequent loss of the elasticity of the aorta and various grades of dilatation. Such dilatation may, of course, occur before there is clinically recognizable insufficiency or outspoken aneurysm. On the intimal surface, one may see whitish plaques due to intimal proliferation and fine wrinkling or "tree barking" due to the loss of the underlying media. These changes are most marked in the first centimeter or two of the aorta, just above the valves. Later, there may be a partial or even a complete blocking of the coronary orifices and an adherence of the valves at their commissures due to the further extension of the intimal proliferation.

Most pathologists believe that the involvement of the heart itself in syphilis is not important and if enlargement does occur, it is due to other

factors such as valvular incompetence, co-existing sclerosis, or hypertension^{1,20}.

From such a pathological picture, we might expect to find clinically in the early case of aortitis mainly the manifestations of moderate dilatation of the aorta. If present, this should be seen in the left oblique X-ray and might cause a hollow accentuated second aortic sound. Pain would hardly be expected at an early stage since this is due to pressure of a moderately enlarged aorta on surrounding structures, and the angina that might be expected with occlusion of the coronary orifices is also usually late in its appearance. In fact, it has been shown that there may be almost complete occlusion of the coronaries at their orifices with total absence of symptoms¹⁰. Cardiac failure would hardly be expected with early involvement of the aorta, and as we have noted, cardiac enlargement is not thought due to the syphilitic process alone, unless the aortic leaflets are involved.

In the present study, as a part of the Cooperative Clinical Survey, a group of 307 white males were examined. One hundred and fifty of these

patients were being treated in the syphilitic clinic. All had had primary lesions 10 years or more before and all had had inadequate treatment. A control group, 157 in number, of similar age was taken from the medical clinic. Cases of rheumatic heart disease and aortic insufficiency were excluded but patients with hypertension were admitted to both groups.

Inasmuch as all of the syphilitic patients had had their infections for more than 10 years without proper treatment, it might be assumed from the pathological incidence of aortitis—in over 70 per cent of cases upon which a postmortem

TABLE I

	CONTROL		SYPHILITIC	
	No.	%	No.	%
TOTAL	157	100	150	100
NORMAL BLOOD PRESSURE	130	83	107	71
Normal Heart and Aorta	113	87	93	87
Dyspnoea	14	12	15	16
Chest pain	24	21	11	12
Angina	4	3.5	1	1
Dilated Aortas	9	6.9	9	8.4
Dyspnoea	4	44	3	33
Chest pain	2	22	0	0
Angina	0	0	0	0
Enlarged Hearts	10	8	8	7.5
Dyspnoea	2	20	1	12
Chest pain	2	20	0	0
Angina	0	0	0	0
ELEVATED BLOOD PRESSURE (Greater than 146/94)	27	17	43	29
Normal Heart and Aorta	12	44	19	44
Dyspnoea	4	33	2	11
Chest pain	4	33	3	16
Angina	0	0	0	0
Dilated Aortas	12	48	22	51
Dyspnoea	9	69	9	41
Chest pain	3	23	4	18
Angina	0	0	0	0
Enlarged Hearts	9	33	15	35
Dyspnoea	5	55	6	40
Chest pain	3	33	4	18
Angina	0	0	0	0

examination was made^{1,2}—that over 100 of these cases did have some degree of involvement of the aorta, and might, therefore, give rise to signs and symptoms characteristic of the condition. To be of significance, however, the incidence of specific findings should, of course, be greater in the syphilitic than in the control group.

In the first place, as the probability of aortic dilatation seemed most likely, on theoretical grounds at least, in the syphilitic series, we were interested in the comparison of the roentgenograms of the two groups. These X-rays were taken in both the posterior-anterior and the left oblique positions and all were reviewed by Dr. Eugene Freedman. The most accurate measurements of the aorta were obtained by measuring the distance from the barium filled esophagus in the posterior-anterior position to the left lateral

aortic wall. Three and one-half to four cm. was taken as the upper limit of normal for this measurement. (Kreuzfuchs' measurement, 23).

In the syphilitic series, there were 107 cases with normal blood pressure. Of these 107, there were only 9, or 8.4 per cent, with X-ray evidence of dilatation of the aorta. In the control group, of 113 cases with normal blood pressure, there were also 9, or 6.9 per cent, who showed aortic dilatation. These figures, on the incidence of dilatation of the aorta, check well with an analysis made by Kemp and Cochems²⁴ of 100 syphilitic and non-syphilitic cases. The Vaquez-Bordet measurement was used as their criterion instead of the Kreuzfuchs. They reported an increase in the X-ray measurements in 7.9 per cent of the syphilitics and 7.2 per cent of the non-syphilitics.

When cases with elevated blood pressure were taken, the effect on aortic dilatation was immediately apparent. Out of 43 cases with high blood pressure in the syphilitic group, there were 19, or 54 per cent, with dilated aortas. In the control group, of 27 cases with elevated blood pressure, there were 12, or 48 per cent, cases with dilated aortas.

From this series, at least, it seems clear that aortic dilatation as diagnosed by X-ray examination is not appreciably greater in the syphilitic than in the control group. Hypertension is, however, a potent factor in causing dilatation in both groups.

Aside from X-ray evidence of a dilated aorta, the sign most frequently mentioned as significant is the tympanic aortic second sound^{4,5}. It was found to be present in a majority of the cases that had dilated aortas by X-ray. Furthermore, it was found in a greater percentage of the syphilitic cases than in the controls. Here again the presence of hypertension had a great deal to do with the results. It is perhaps fair to say that, given a patient with syphilis and normal blood pressure, we may be suspicious of aortitis if the aortic second sound is tympanic. But the sign cannot be considered diagnostic since a certain percentage of the control group had dilated aortas and tympanic aortic second sounds in the presence of normal blood pressure.

Dyspnoea on exertion or paroxysmal in character was found no more frequently in the syphilitic series than in the controls. As a matter of fact, it was more frequent in the control series. Again in both groups, the manifestation was mainly a function of the blood pressure.

Chest pain of various types, as well as true angina, was found more often in the control than in the syphilitic group.

An analysis of the electrocardiograms by Dr. Harold Feil, showed no consistent deviations in either group. There were cases in both series

giving clinical evidence of cardiac disease in which the electrocardiograms were normal.

CONCLUSION

Although there is an obvious need for earlier clinical recognition of syphilitic aortitis, the present state of clinical knowledge does not permit a high degree of correlation with the pathological findings.

There is no significant difference between a control and syphilitic group in regard to:

1. Aortic dilatation.
2. Dyspnoea.
3. Chest pain of various types of typical angina.

In both groups, the presence of hypertension was the real factor of importance and had a significant effect on the incidence of:

1. Aortic dilatation.
2. The quality of the aortic second sound.
3. Presence of dyspnoea.

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Sterility

The problem of sterility is today of increasing importance as we are learning more concerning the factors responsible for the failure of a couple to conceive. It is not an insignificant problem when we realize that approximately one in every ten marriages is childless. When we consider the birth rate has decreased markedly over the past 20 years, the problem may also be of sociological significance. This is particularly true, as many of these sterile matings are among those who would make the most desirable parents.

We no longer should think of one individual as being sterile but rather of sterility, or better, infertility, being the result of a given mating. We recognize that for conception to occur certain prerequisites must be satisfied. The male must produce a sufficient number of viable, active spermatozoa which can be discharged through a patent generative tract. The female must produce normal ova which, because of the patency and proper preparation of her generative tract, are transported through the tube, and, subsequent to fertilization, adequately implanted in the uterus. In addition, the spermatozoa must reach the tube at a time when the ovum is capable of fertilization.

It is obvious, then, that there may be many causes for failure of conception. In the majority of instances, more than one factor is present and recognition of this fact is essential in the adequate management of sterility. Meaker states that in patients studied by him there was an average of 4.8 causes for each sterile mating. In some cases, one factor may preclude all possibility of pregnancy. In many more instances, pregnancy is prevented by a number of factors, any one of which would not be sufficient to produce sterility. One should be very careful in assigning the fault to either the male or the female alone. Most investigators agree that the major factor is found in the male in approximately one-third of the instances. It is well to remember, however, that it is usually the male who infects his wife with gonorrhea and in that way is responsible for a considerable portion of female sterility.—Carl P. Huber, M.D., Indianapolis; The Jr., Mich. S. Med. Soc., Vol. 39, No. 3, March, 1940.

There are approximately 150,000 blind persons in the United States, according to the 25th annual report of the National Society for the Prevention of Blindness.

Cleveland City Hospital Observations on Sources of Infection in Syphilis

HAL. E. FREEMAN, M.D.

THERE have been several recent reports¹ on source determination and case finding in syphilis.

In the Cleveland City Hospital, previous to August, 1938, some effort was made to determine sources of infection and to obtain names of other possible contacts who might be recipients of infection. Since then special emphasis has been directed toward this work.

ROUTINE OBSERVED

The procedure in source and contact determination used in this clinic is for both the physician and the social worker to interview and carefully question each patient regarding his source of infection and his subsequent contacts. Names and addresses of, or descriptive data pertaining to, possible sources and contacts are obtained and are recorded on a special colored sheet of a different color from other sheets used on either our out-patient department or hospital records. This adds emphasis to these data.

If the patient is to see the individuals whom he names, either as visitors or otherwise, he is advised to persuade these individuals to be examined and to even explain that a single examination may not suffice. This latter advice is important, regarding serologic follow-up, in the event the contact goes for examination to a private physician and is told he "is negative" after a single examination.

Possibly infected individuals when seen are instructed regarding the time necessary for follow-up examinations in their particular case. This will depend, of course, upon the time interval which has elapsed since the contact, and upon the stage and activity of the infection in the possible source at the time of the contact. Any visitors to the syphilis ward who are possible sexual contacts, or who are young children and who may have become infected by the routine care of their infectious parent have a physical examination and serologic tests at the time of their visit. Cooperation is usually easily obtained from these persons.

In order to stop the spread of syphilis it is necessary to determine the sources of infection

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and render them non-infectious. It is considered urgent to get sources under observation and treatment as soon as possible. Contacts may often be advised by mail to be examined unless, as is usually true, the individual case warrants home calls because of the particularly great likelihood of infection in that contact.

Sources, however, are dealt with more stringently. Often the named source is seen as a visitor to the ward and examined then. If such individuals present no physical evidences of active syphilis a blood specimen is taken and the person is referred to the out-patient clinic for the indicated period of follow-up. Actively infectious individuals so seen are immediately hospitalized. If the named source is not seen as a visitor to the ward, a card or letter is sent which diplomatically requests that the addressee come in for examination. If this effort is not immediately fruitful a "home call" is made by a public health nurse whose duty it is to contact the source and get him to the clinic. This means more than just ringing the doorbell and possibly getting no answer, or being told the individual is not there, or that he has moved and his whereabouts are unknown. It means really finding the named source by following out various clues and tracing down various aliases. This is difficult detective work and requires effort and initiative as well as plenty of perseverance. The sources brought into the clinic, after careful examination and final diagnosis, are started on therapy. They, of course, are also questioned regarding further contacts.

Occasionally an infectious individual is found who either refuses to accept treatment or who stops his treatment before he is definitely non-infectious. Usually efforts by the social service worker or the public health nurse will bring these patients in. If not, complaints against such cases go promptly to the board of health and

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police action is taken, ending in quarantine. Such quarantined persons, who are a public health menace, are given intensive therapy and are kept quarantined until the therapy is adequate to render them non-infectious, and/or until the attending staff is convinced that the patient will thenceforth continue his treatment. Several instances of serious cutaneous or neurologic relapse may be called to the attention of such patients and frequently this has a good psychologic effect. The administration of at least a minimum of 30 arsenical and 30 intra-muscular injections, or their equivalent, is considered to be of utmost importance for these persons who are known to have been the source of a syphilitic infection and who are uncooperative. Therefore, the procedure in such cases has been related in detail.

RESULTS OF EMPHASIS ON SYPHILIS
SOURCES AND CONTACTS

Results following emphasis on the employment of the above routine have been good.

In order to determine if any considerable improvement was resulting following the institution of these follow-up procedures the charts of all cases of primary and of active secondary syphilis from August 1, 1930, to August 1, 1939, were reviewed. The findings are shown in Table 1.

TABLE 1

Time period:	Number of patients admitted with primary and early secondary syphilis	Number in whom the source was recorded or could be determined	Percentage of admissions in which source could be determined
Four years August 1, 1930 to August 1, 1934	721	34	4.7%
Four years August 1, 1934 to July 31, 1938	494	55	11.1%
One year August 1, 1938 to August 1, 1939	107	71	66.3%

It was found that, during the period from 1930 to 1934, the source of infection was determined and recorded in less than 5 per cent of the cases.

In the similar period, from 1934 to 1938, slightly more than 11 per cent of all the early infectious cases of syphilis had accurate source determinations.

During the one year period, however, between August 1, 1938, and August 1, 1939, the source was determined and was known to be receiving therapy, either in this clinic, or elsewhere, in over 66 per cent of the cases. Thus, intensive effort has resulted in a twelve-fold increase in source

determination in early syphilitics in one year.

Of 160 sources of infection for Cleveland City Hospital patients, determined either recently or from the records, 123 were being treated in our own clinic, 31 were under treatment in other hospitals and clinics in Cleveland, and six were under the care of private physicians. Of the six, one, who was the source of infection for two patients in our hospital, is known to be receiving treatment in her home town, Miami, Florida, where the infection occurred. This information was brought about by correspondence with the health authorities and two private doctors in that city.

An analysis of these 160 cases is shown in Table 2. Of these cases of early infectious

TABLE 2

Females				
Number infected by marital partner	Number infected by clandestine intercourse	Female children infected by infectious mother or nurse	Prostitutes	
62	40	3	2	

Males				
Number infected by marital partner	Number infected by clandestine intercourse	Number infected by prostitutes	Infected homosexually	Male child infected, non-sexually, by another child
19	17	15	1	1

syphilis in which the source could be determined, 107 or 66.9 per cent, were females while 53, or 33.1 per cent, were males. Females, then outnumbered males 2:1. Figures from the clinic de Beurmann^{1d} revealed that, conversely, males outnumbered females, almost 2:1 there. Perhaps this difference could be explained by the different clinic clientele.

The number of women infected by their marital partners was 62, or 57.9 per cent in this series as opposed to 17 per cent in the French series while men infected maritally numbered 19, or 35.8 per cent, as compared to 2 per cent.

Women infected by clandestine intercourse numbered 40, or 37.9 per cent of the total of 107. This compares favorably with the 30 per cent reported from the clinic de Beurmann. Men infected by clandestine intercourse numbered 17, or 32.1 per cent, as opposed to 14 per cent in the comparable series.

Three, or 2.8 per cent, of the 107 females were

children who became infected by their mothers or nursemaids. Only two, or 1.9 per cent, of the women for whom the source of infection could be accurately determined in this clinic were prostitutes, while 53 per cent of the French series were so classified. The figures quoted in the present report are taken from the study of infected individuals whose source of infection was determined accurately and beyond reasonable doubt. This thought is stressed because, of course, we do have many prostitutes who are infected with early syphilis but, in practically every case it is impossible for these persons to state the source of their infection both because of the multiplicity of exposures and because of lack of identifying information, and therefore, they cannot be included in such a study.

Fifteen men, or 28.3 per cent of the total number were infected by prostitutes, while the French study showed that 79 per cent of the men with known contacts were infected by prostitutes. Here, again, it should be emphasized that it is not to be concluded that only 28 per cent of infected males have been infected by prostitutes because the percentage is probably greater. However, it is true that of those men in the present series who could definitely identify their source of infection, only 28.3 per cent were infected by prostitutes.

One boy, or 1.9 per cent of the total males, received his infection homosexually while another child was infected by a baby with congenital syphilis who had a mouth lesion teeming with *Spirochaeta pallida*.

Of the 160 cases on which this study is based 85 were colored and 75 were white persons. Roughly, admissions to the dermato-syphilologic service are about three-fourths colored and one-fourth white. Thus, it appears that the white patient with early syphilis is about three to four times more likely to be able to accurately state the source of his infection than is the similarly affected colored patient.

INTERESTING CASE OBSERVATIONS

1. A young colored husband was admitted with active secondary syphilis. Efforts to learn the source of his infection were unavailing since he insisted he had had no extra marital exposures. After several weeks, the wife was admitted with an early infection. She admitted exposure to one other individual who was found to be infected with a sero-negative primary syphilis. History as to onset of chancre, secondaries, etc., proved that the husband infected the wife and then she infected the third individual, rather than vice versa.

2. The longest series of transmissions brought to light by this study is one in which the infection was traced through six individuals. A colored

prostitute, who was identified and is being treated, infected an unmarried man who then infected a young married woman who infected her husband and another individual. This husband was then the source of infection in another married woman who then infected her husband. Thus, this infection was definitely traced to two individuals and two married couples.

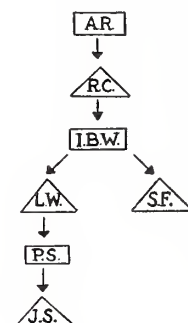


Figure 1

3. In addition to the above series there were 15 names which appeared more than once in a series of 160 persons whose source of syphilitic infection was known. Four of these were found to be the source of infection in two different patients while 11 were found whose source could be determined while they, themselves, were also proved to be the source of another infection.

4. Children:

(a) There were in the series three little girls, whose ages varied from several months to seven years, who were infected, sexually, by a 14-year-old boy who had acquired his infection, homosexually, from an old man whose identity was never learned. Therefore, the man could not be included as a source of this boy for purposes of this study, but the brother and the three sisters could be included because their brother, with early secondary syphilis, was definitely considered to have been their source of infection.

(c) A seven-year-old white boy had a chancre on the tonsil with unilateral lymphadenopathy. Soon thereafter, his 23-months-old cousin, with whom he played, was seen with congenital syphilis with cerebro-spinal fluid involvement. A dark-field examination of serum from an injured area revealed *Spirochaeta pallida*.

5. One of the most interesting and instructive series in the whole group is as follows:

L. H., a young colored man, was admitted to the hospital in March, 1938. He was given five arsenical injections and lapsed in his treatments and failed to respond to follow-up requests. Four months later a young high school girl named him as her source of infection. Again special efforts to locate the patient were unavailing. Then, in February, 1939, seven months later, a second high school girl, an acquaintance and rival of the first

one, named this person as her source of infection. Effort was again made both by our "follow-up machine", and by the board of health. Finally, one year after this prolific source was first admitted with syphilis, his wife, from whom he had been separated until then, appeared with an early infection and stated that she had recently resumed living with her husband. Not long thereafter, but twelve months after he lapsed treatment, this person was finally found and quarantined for a prolonged course of very intensive therapy.

6. Possibility of error:

It is easy to obtain misleading and/or inaccurate information in the pursuit of source determination.

The histories given would have indicated that either R.R. or J.W. was the source of L.W. (Fig. 2). It was determined, upon further questioning, however, that H.G. (R.R.'s roommate), had had an early syphilis 18 months before, and

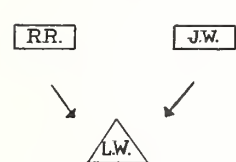


Fig. 2

First thought . . .

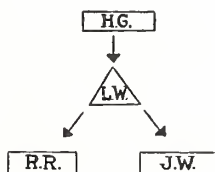


Fig. 3

Later Found . . .

had received four intravenous injections. H.G. and R.R. were being concurrently exposed to L.W., when H.G. suffered a relapse evidenced by a papular eruption limited to the face and by alopecia syphilitica. H.G. then, was the source of L.W., and L.W., in turn infected R.R. and J.W. (Fig. 3). The records, then, had to be revised when the new information was obtained from further questioning of J.W. and from interviewing H.G.

SUMMARY

The management of both the source of infection and the contacts of known infectious persons plays an important part in the control of syphilis.

A method for such management is described.

A series of 160 source-determined cases is presented. In a group of 107 recent cases the source of infection was determined in 71 instances (66.3 per cent). Treatment was instituted in this entire series.

Observations concerning source of infection and several interesting case studies are presented.

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Regional Ileitis

X-ray studies of the gastro-intestinal tract offer one of the most positive diagnostic aids in this disease. Kantor, in his article on roentgen diagnosis of regional ileitis, summarizes his technic as follows:

"The usual oral opaque meal is employed, as well as the barium enema. All roentgenograms are made with the patient prone, rays being directed dorsoventrally. This posture is preferred to the erect position because in the former the ileal loops are more widely separated. Observations are made at hourly intervals from the period just before the cecum fills to the normal period of ileac emptying. This means from three to nine hours after ingestion of the opaque meal. The patient is allowed to take an ordinary meal as soon as the stomach is seen to be empty. This takes place normally five hours after the barium meal. The abnormalities, as revealed by X-ray studies, may be either in the ileum or colon, or both. The changes in the latter may be reflex in nature, that of a secondary spasm, or may show actual progression of the disease from the ileum."

The characteristic changes in the ileum, briefly, are:

- a. Filling defect just proximal to cecum.
- b. Abnormality in contour of the terminal loop of the ileum.
- c. Dilatation of ileal loops just proximal to the lesion.

Kantor describes a roentgenologic sign which is very suggestive and characteristic of regional ileitis. He called this the "string sign". This consists of a thin, slightly irregular linear shadow, suggesting a cotton string in appearance, and extending from the region of the last visualized loop of ileum through the entire extent of the filling defect, and ending at the ileocecal valve. It represents the attenuated barium filling the greatly contracted intestinal lumen. Weber has recently offered the term "twisted cord appearance" as an alternative for the string sign.

The absence of the string sign does not exclude the disease. Every effort should be made to demonstrate filling defects in the terminal ileum.

The string sign, or very similar streaks of barium, have been seen by X-ray in circumscribed tuberculosis of the terminal ileum. Stenosing sarcomas of the terminal ileum and syphilis of the terminal ileum may present the same picture. —William A. Leff, M.D., Newark, N. J. *The J. of Med. Soc. of N. J.* Vol. XXXVII, No. 4, April, 1940.

Compression of Upper Ureter by Metastatic Embryonal Carcinoma of Periureteral Lymph Node, Primary in the Testis

WM. ROSENBERG, M.D., F.A.C.S.

METASTATIC neoplastic invasion of retroperitoneal lymph nodes is frequently seen in malignancy of the genital tract. Ureteral compression due to primary retroperitoneal infiltrating neoplasms with resultant ureterectasis and pyelectasis is also not an uncommon finding (Fig. 1). Ureteral compression due to metastatic invasion of periureteral lymph nodes, however, is of rare occurrence.

Illyes¹ reports the only operated case in the literature where ureteral compression was brought about by a lymph node enlarged by a metastatic growth of a testicular neoplasm. His patient had painless enlargement of the left testicle two years prior to admission to the hospital for pain and tenderness in the region of the left kidney. Orchiopexy had been done on this testicle several years before at the time herniorrhaphy was performed. Nephrectomy was performed for a pyonephrotic kidney. Below the ureteropelvic junction there was an enlarged lymph node compressing the ureter. The node was thought to be of inflammatory nature and was not examined histologically. Six months later, an exploratory operation of the scrotum disclosed a tumor of the testis and subsequent histological examination of the previously removed lymph node revealed the same type of tumor tissue.

Gordon Gordon-Taylor² also reports a case of bilateral ureteral compression by metastatic abdominal lymph nodes. The patient, a young physician, had an orchidectomy performed previously for neoplasm and died in uremia. The diagnosis was made clinically and no autopsy was performed.**

Katzen³ reported a case of ureteral compression resulting from the pressure of a metastatic spindle-cell sarcoma of an adjacent retroperitoneal lymph node associated with metastatic spindle-cell sarcoma and miliary abscesses of the corresponding kidney. This patient was a female, age 52 years, who complained of pain in the right lumbar region and right loin of one weeks duration. Three months prior to the present admission, she had been operated upon for an abdominal tumor which was found to be a spindle-cell sarcoma of the ovary. Situated

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slightly below the uretero-pelvic junction and firmly compressing the ureter, there was noted an enlarged lymph node. The ureter showed no infiltration at the site of the compression.

Goldberg⁴ reported a case of complete occlusion of the ureter produced by a metastatic carcinoma of the lumbar lymph nodes. This occurred in a female, age 45, who complained of intermittent low abdominal pain of two years duration. At operation, bilateral oophorectomy was done for granulosa-cell carcinoma. One year later the patient was re-admitted because of back pain of three months duration. There were no urinary disturbances. Urological examination showed the right side to be entirely normal but an impassable obstruction was encountered in the left ureter at 21 cm. A pyelogram of the left kidney could not be obtained. Operation disclosed a normal left kidney but the lumbar ureter was fixed and surrounded by metastatic carcinomatous lumbar and ureteral lymph nodes. These nodes were involved by direct extension from the ovary on the corresponding side. Nephrectomy was performed.

CASE REPORT

M. C., a white male, age 35 years, was admitted to Mount Sinai Hospital February 5, 1936, complaining of pain in the left flank associated with nausea and vomiting. Ten days prior to admission the patient was seized with severe pain in the region of the left kidney. The pain was aching in character and radiated to the lower left quadrant of the abdomen and left thigh. There had been no relief of symptoms during this period of time and the nausea and vomiting were continuous. There were no chills or fever and the patient stated that he had had no previous attacks or any urinary disturbances. There was a loss in weight of 10 pounds since the onset of illness. A left orchidectomy was done elsewhere in 1935 but the patient stated that he did not know what this was done for. An appendectomy was done in 1934. Six months after the

*Pathological Reports Dr. B. S. Kline and Dr. A. M. Young.

**Personal communication.

Submitted March 16, 1940.

nephrectomy it was learned that orchidectomy was performed for teratoma testis. The following history was submitted by Dr. D. J. Rehbock, pathologist at St. Vincent Charity Hospital:

"Patient was admitted to St. Vincent Charity Hospital December 14, 1935, complaining of dull aching pain in the left groin of several days duration. Several days prior to admission he



Fig. 1. Urogram: Compression and invasion of ureter by inoperable retroperitoneal sarcoma.

struck his abdomen against a heavy box he was lifting. The patient stated that he had always had an undescended testis on the left side. The pain increased in severity and was accompanied by vomiting.

Examination showed a tender swelling in the left inguinal region with redness of the overlying skin. There was no hernia present and no testis could be palpated in the scrotum on the left side. Left orchidectomy was performed December 18.

Pathological Report: The specimen consists of a testis and epididymis and the adjacent 3 cm. of spermatic cord. The testis measures 5x3.5x2.5 cm. In the lower anterior portion of the testis is a tumor mass 2.5 cm. in diameter which compresses yellow glandular tissue posteriorly and which forms a nodular projection on the anterior surface of the testis. The tunica albuginea is involved anteriorly and the tunica vaginalis is adherent over the tumor area. The tumor mass is characterized by a peripheral thick zone of dense fibrous tissue which forms a fair encapsulation. In several areas, however, there are several pale soft areas in the testicular tissue outside this capsule. The tumor is soft and pale grey with a large central area of pale yellow, soft friable tissue which appears necrotic. A thin red line of hemorrhage surrounds this central area. The uninvolved glandular portion of the testis shows a pale yellow tubular structure with dif-

fuse fibrosis, the tubules failing to string out. The epididymis and cord show no gross changes.

Microscopically, the tumor is characterized by irregular fibrosis with lymphoid tissue and areas of loosely arranged tumor cells of moderate size. The tumor cells are irregularly rounded and have large hyperchromatic nuclei. There is no architectural arrangement. The central portion of the tumor is necrotic but the cell outlines are preserved, showing the central portion to be made up of compact tumor cells with no visible reticulum. The tunica is invaded by the tumor and cells are seen on its outer surface.

Pathological Diagnosis: "Embryonal Carcinoma of Testis."

When the patient was admitted to Mount Sinai Hospital he appeared fairly well developed and physical examination was essentially negative except for marked rigidity in the upper left quadrant and tenderness on percussion posteriorly in the region of the left kidney.

Laboratory Report: Leucocytes, 7200; R.B.C., 5,000,000; P.S.P., 92 per cent in three hours; Kline test for syphilis negative; blood chemistry normal; urine February 11, 1936, negative for prolan A and B; specimen from left kidney showed albumin 2 plus, occasional pus cells and red blood cells; urine from right kidney was negative; culture showed no growth on two occasions.

A plain X-ray film showed marked distention of the colon. The outline of the right kidney ap-

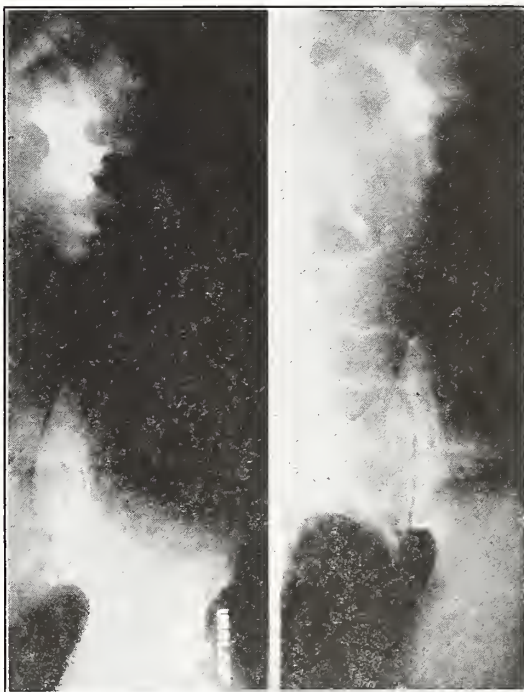


Fig. 2-A. Urogram: Inferior calyx with insufficient concentration of dye.

Fig. 2-B. Urogram: Small segment of ureter with irregular filling of middle and lower calyces.

peared normal whereas the left could not be seen due to distention of the bowel. The outline of the psoas muscle was not visible and there were no shadows indicative of calculi in the region of the urinary tract.

Cystoscopy Feb. 11, 1936: There was a stricture of the urethra present. The cystoscope was intro-

duced after dilatation. Bladder urine was clear grossly and no pathologic change was noted in the bladder. The ureteral orifices were normal in appearance and in position. A No. 6 catheter was introduced on the left side and easily passed to the pelvis of the kidney. Grossly clear urine was obtained. Pyelography was done with 15 per cent skiodan. The pyelogram (Fig. 2-A) showed slight dilatation of the renal pelvis and calyces. The inferior calyx showed much less concentration of dye than the superior calyx. The ureter was not outlined. It appeared as if there might be some pathologic lesion on this side and it was deemed advisable to repeat the pyelography. This was done February 13, skiodan being injected with the patient in Trendelenburg position. The lower half of the pelvis (Fig. 2-B) again showed poor filling with irregular filling of the middle and lower calyces. The upper half of the ureter showed only a small segment of dye whereas the lower half appeared normal. It was felt that the pyelogram suggested a pressure defect involving the ureter rather than intrinsic disease of the kidney although no definite diagnosis could be made. Right pyelography showed a normal renal pelvis.

An exploratory operation was performed February 17, 1936. The left kidney was found to be enlarged particularly the lower pole. Just below

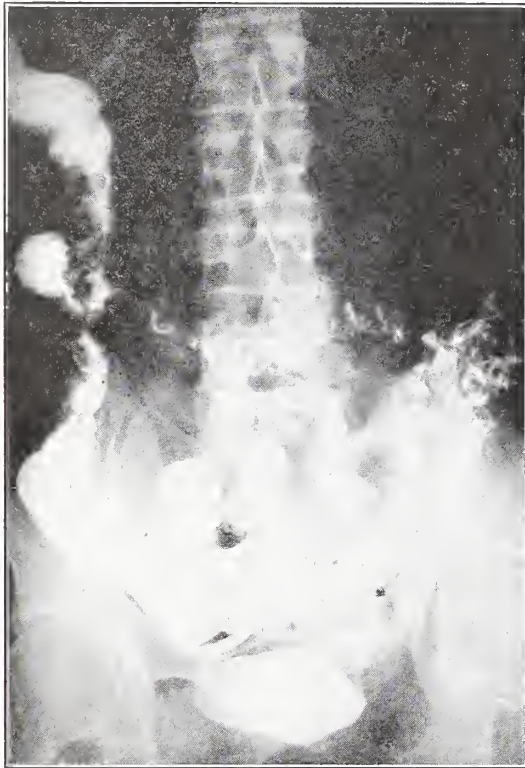


Fig. 3. Barium enema showing distended loops of ileum probably due to enlarged lymph nodes or adhesions.

the kidney was a tumor mass about $2\frac{1}{2}$ cm. in diameter which was markedly adherent to the ureter. The tumor was very hard and appeared malignant. It was impossible to dissect the mass from the ureter so that nephrectomy was performed.

The patient made an uneventful recovery but

subsequently complained of lower abdominal pain. A barium enema was done March 24, 1936, and this showed (Fig. 3) a normal filling of the colon and cecum. There was a large distended loop of ileum on the left side of the pelvis and several smaller pockets of distended loop of ileum on the left side of the pelvis and several smaller pockets

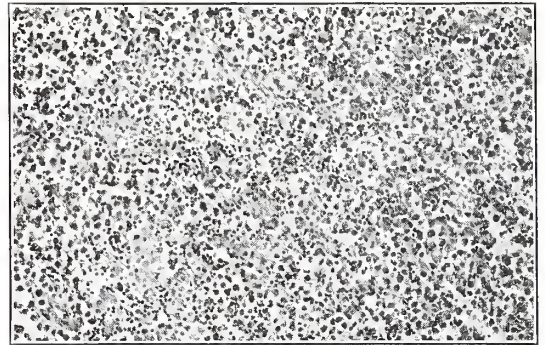


Fig. 4. Photomicrograph. Low power mag. metastatic growth of embryonal carcinoma of testis in periureteral lymph node.

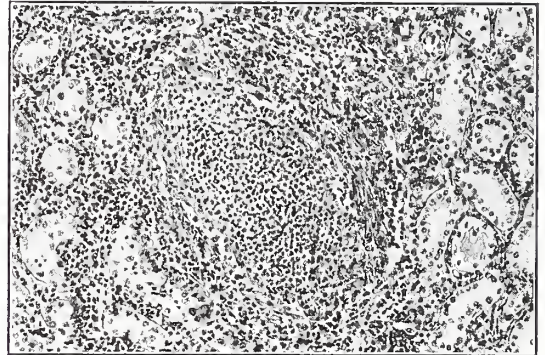


Fig. 5. Photomicrograph: Low power mag. ascending subacute and acute pyelonephritis.

of distended ileum in the lower abdomen. It was the impression of the roentgenologist that there were adhesions or enlarged lymph nodes causing interference with the function of the small bowel. The stomach and duodenum were also examined and appeared normal.

Pathological Report: S.P. No. 27062; Specimen consists of kidney and upper portion of ureter which together with a small amount of perinephric fat weigh 240 grams. Attached to the upper portion of the ureter just distal to the junction of the renal pelvis with the ureter there is a reddish brown fleshy mass about $2\frac{1}{2}$ cm. in greatest diameter firmly attached to the wall of the ureter but apparently not invading it. On section this mass is of coarse architecture, everywhere soft and compressible, grossly suggesting metastatic carcinoma or primary tumor of the lymph node. The pelvis of the kidney is of average size. The pelvic membrane is somewhat thickened and edematous and shows numerous reddish brown areas suggesting hemorrhage with acute inflammation. The kidney is about average size and the capsule strips with difficulty tearing away some of the underlying parenchyma. The external surface of the kidney is slightly roughened and shows numerous small reddish brown

flecks. On section the cortex is pale and swollen and the striations are blurred.

Microscopically (Fig. 4) the periureteral lymph node shows the normal structures almost entirely replaced by tumor tissue. The tumor is made up of diffusely arranged large round or polyhedral cells of embryonal type with large hyperchromatic nuclei and a thin rim of faintly pink stained cytoplasm. There are many mitotic figures present. The tumor is in places alveolated by thin strands of connective tissue in which there are numerous small lymphocytes possibly remnants of the invaded lymph node or possibly lymphoid stroma of the tumor. In places the tumor is necrotic with only phantoms of former structures remaining. The ureteral wall regional to the node is thickened by edema especially in the submucosa. There is no appreciable invasion of the wall of the ureter by tumor tissue. The perinephric fat shows areas of fat necrosis and considerable round cell infiltration (lymphocytes, monocytes and in places polymorphonuclear leukocytes).

Three sections of the kidney (Fig. 5) show the pelvic membrane ulcerated in places and covered by tags of fibrino-purulent exudate, with focal areas of hemorrhage, considerable infiltration by polymorphonuclears, eosinophiles and monocytes. The tubular epithelium of the kidney is swollen, many of the tubules are filled with polymorphonuclear leukocytes and amorphous pink stained material. In the cortex there are focal areas of suppuration involving the tubules, interstitial tissues and glomeruli.

Surgical Pathological Diagnosis: Metastatic embryonal carcinoma $2\frac{1}{2}$ cm. diameter of periureteral lymph node (primary in testis) with stenosis of upper portion of ureter; ascending subacute and acute pyelonephritis.

Microscopically, the lymph node was the same as the testicular tumor removed previously.

The patient was seen August, 1937, and May, 1938, apparently in good health and the urine was still negative for prolan B.

SUMMARY

A case of compression of the upper ureter by a metastatic embryonal carcinoma of the periureteral lymph node is reported occurring in a white male age 35 years. The only other similar case reported in the literature is that of Illyes. Gordon Gordon-Taylor reports a similar case with the diagnosis made clinically. The clinical recognition of this condition is difficult since the diagnostic criteria are insufficient to differentiate the concomitant pyelectasis from other causes.

It is interesting to note that the roentgenologist, Dr. H. A. Mahrer, interpreted the urogram as ureteral compression rather than intrinsic renal disease.

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Regional Enteritis

Only familiarity with the protean manifestations of this condition permits its clinical recognition. The symptomatology almost invariably points to an obstructive lesion of the lower intestinal tract, and usually it is necessary to eliminate by adequate proctoscopic and roentgenologic methods such lesions of the colon as chronic ulcerative colitis, cancer and diverticulitis. The importance of a painstaking physical examination need not be stressed. The detection of a right lower or mid-abdominal mass may be anticipated in a majority of cases. Not infrequently the involved segment of bowel becomes fixed in the pelvis and can be palpated only on vaginal or rectal examination, and often it is mistaken for an adnexal mass. The presence of a fecal fistula which developed after an appendectomy may be highly significant, although a search for sulphur bodies and acid-fast bacilli should not be omitted in such cases. A conclusive diagnosis, however, rests on roentgenoscopic demonstration of the lesion. This can be accomplished by the use of both the barium meal and the barium enema. Weber reports that by the use of the latter alone the majority of the lesions can be demonstrated, although the barium meal is employed whenever confirmatory evidence is required. The roentgenologic diagnosis rests chiefly upon demonstration of the stenosing character of the lesion with the resulting narrowing of the lumen of the bowel, constituting the well-known "string sign" of Kantor. In addition, the ulcerative character of the disease is important roentgenologically since the normally regular mucosal pattern usually is distorted. In the series of 44 cases reported by Clark and Dixon, three cardinal features were of outstanding importance in the diagnosis: (1) a palpable mass in 32 cases, (2) chronic obstruction in 28 cases, and (3) in 36 or 39 cases that were examined roentgenologically, a demonstrable lesion. —Robert J. Coffey, M.D., Washington, D. C.; *Med. Annals of Dist. of Col.*, Vol. IX, No. 4, April, 1940.

A gauze sponge, overlooked during a salpingectomy, sloughed into the bowel and thence into the bladder. It was removed cystoscopically, and catheter drainage was employed for two weeks, with a cure. At first, fecal matter passed through the catheter.—C. H. deT. Shivers, Atlantic City.

The Selection and Management of Anesthesia for Upper Abdominal Surgery

J. D. SPAID, M.D.

SURGICAL procedures in the upper abdomen which require maximum assistance from the anesthetist and best results from the anesthetic agent include operations upon the gall bladder and biliary tract; the stomach; duodenum; spleen, and more rarely, the pancreas. The surgical procedure proposed, the general physical condition of the patient; and whether the operation is an elective or an emergency procedure all play an important part in the selection of the anesthetic agent and the preparation of the patient.

In writing this paper 387 cases of upper abdominal surgery with which we have had personal contact during the past two years have been reviewed. The following table represents the distribution of cases as to operative procedure.

Cholecystotomy	35	Gastro-enterostomy	44
Cholecystectomy	198	Gastric Resection	21
Choledocholithotomy	59	Gastrostomy	9
Cholecystogastrostomy	3	Duodenal Diverticulum	1
Carcinoma of Liver	5	Rupture of Spleen	2
Perforated Duodenal Ulcer	10		

The anesthetic agents used with these cases were: local infiltration (novacaine), ethylene (ether), cyclopropane, basal avertin and supplemental gas, and pontocaine spinal.

Surgical intervention in the upper abdomen with the exception of simple drainage of the gall bladder, or cholecystectomy in certain individuals, presents a difficult mechanical procedure. The operator is hampered by the necessity of often working through a small opening and at considerable depth. The proximity of the diaphragm and its movement during respiration, the liver; and frequently the obesity of the patient, all add to the difficulties. In robust patients with good musculature, and in cases of perforation of the duodenum, or a ruptured viscus, with the attendant "board-like" rigidity, the ease of accessibility is greatly decreased.

In approaching the problem of anesthesia for upper abdominal surgery several factors must be considered. (1) **General condition of the patient.**—Each patient must be considered individually from the anesthetist's standpoint and the operative procedure necessary. Is the patient young or old? Thin or obese? Frightened and apprehensive? Are other grave conditions such as diabetes, nephritis or active tuberculosis

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present? Is the patient a fairly good risk, or in a state of shock? The premedication selected and the choice of anesthetic agent must be weighed carefully for each condition or group of factors present.

(2) **Operative Procedure Proposed.**—The proposed surgical procedure will govern the choice of anesthetic in many instances. Simple drainage of the gall bladder does not present the technical difficulty and problems of choledocholithotomy, or the repair of a perforation of the duodenum. The more radical the operative intervention the more potent the agent to be used is the general rule.

(3) **Operative Premedication.**—The preliminary premedication necessary must be regulated by the factors of age, anesthetic agent to be used and the general physical state of the patient. The older the patient the lighter the premedication generally speaking. Barbiturate premedication should be omitted in those cases where use of one of the intravenous agents (pentothal or evipal), or a basal rectal anesthetic (avertin) is contemplated. Barbiturates should also be omitted with elderly individuals. A barbiturate is often of value before spinal anesthesia as a prophylactic measure against the toxic effects of the novacaine or allied agent used. If an inhalation agent is to be used one must consider the use of either atropine or scopolamine for the drying effect and the suppression of troublesome mucus. Personally we prefer the scopolamine because of the added sedative effect. Where spinal anesthesia is to be used the preoperative dose of one of the vaso-pressor agents, such as ephedrine or neo-synephrin, is usually indicated, except in patients with hypertension and sclerosis of the vascular system. At present we favor neo-synephrin over ephedrine, feeling that

there are less untoward cardiac symptoms following its use. In all types of anesthesia the use of some opiate is usually indicated because of sedation and also because it reduces the amount of anesthetic agent necessary to produce the best results. Morphine in proper dosage is perhaps the best of the opiates for this purpose.

(4) **Toxicity of the Anesthetic Agent.**—The anesthetic agent selected should be the safest possible that is compatible with effective results for the operative procedure contemplated. A weak agent used with idea of safety in a major operative procedure undoubtedly does the patient more harm than an agent of greater potency. The incidence of shock and anoxia are greatly enhanced by the use of too weak an anesthetic agent. At the present time we have available a great number of agents to choose from. Briefly, they are: novacaine for local infiltration and block; nitrous oxide, ethylene, ether, vinethane, cyclopropane, and various combinations of these for inhalation; evipal and pentothal sodium for intravenous anesthesia; and the various drugs for spinal anesthesia such as novacaine, mety-caine, pontocaine and nupercaine.

All of these agents have varying degrees of potency and toxicity, and the selection of an agent for certain procedure will be discussed later in this paper.

(5) **The Skill and Speed of the Surgeon.**—Finally, the skill, ability and speed of the operator must be judged. A procedure that may be performed by one surgeon under a light agent may require the most potent of agents for another. For example, with spinal anesthesia one may use novacaine for a rapid operator and pontocaine, or nupercaine for a slower surgeon for the identical piece of work to be performed.

Perhaps the simplest and least shocking of upper abdominal surgical procedures is ordinary drainage of the gall bladder. This may be accomplished many times under local infiltration and field block with novacaine. Occasionally it may be necessary to supplement the local with a very light gas anesthesia. In old and debilitated patients this is the safest method. In the younger and more robust, cyclopropane anesthesia is adequate in most instances for the performance of this procedure.

Cholecystectomy may be relatively easy, or extremely difficult. In a thin weak individual the operation can be done nicely under cyclopropane anesthesia. In the obese, and the muscular subjects one must frequently decide upon cyclopropane-ether or spinal anesthesia for the most satisfactory results.

For operations upon the common bile duct we feel that spinal anesthesia to a high level offers the best for the patient and the operator in most instances. Cyclopropane with ether would be our next choice. We choose cyclopropane because

of its relative low toxicity and the abundance of oxygen present at all times.

Surgery of the stomach requires good relaxation and a quiet abdomen. Again spinal anesthesia offers the best results. As a second choice we prefer a basal anesthetic of avertin supplemented with cyclopropane inhalation. We personally do not use avertin in gall bladder surgery, or in any case in which one might suspect the slightest biliary disease.

CHOICE OF ANESTHETIC

In operations for the repair of perforated duodenal ulcer, or ruptured viscus, spinal anesthesia is undoubtedly the agent of choice. These conditions are always emergencies and usually the patient has more or less shock with a very rigid abdomen. Spinal anesthesia with inhalation of 100 per cent oxygen affords perhaps the best conditions for the surgeon and the safest for the patient. While many authorities do not use spinal anesthesia in cases of shock we feel that with preliminary blood transfusion, intravenous glucose and adequate oxygenation that spinal anesthesia is relatively safe. Because of the fact that the case is desperate we must sacrifice a certain degree of anesthetic safety for better operative conditions.

Of all the agents at our disposal nitrous oxide is the weakest and perhaps the most unsatisfactory for upper abdominal surgery. Ethylene fortified by ether is satisfactory in many instances. Cyclopropane, either alone, or supplemented with small amounts of ether is the best of the inhalation agents. Straight drop ether will produce adequate anesthesia in most instances but the toxic effects upon the patient are much greater. Elimination is much slower. Pulmonary irritation is produced and post operative nausea and vomiting may usually be expected, with the accompanying upset of metabolic processes. Spinal anesthesia as a single agent; or in the nervous, apprehensive patient supplemented with light gas anesthesia comes the nearest to the ideal. With all inhalation anesthesia for the radical upper abdominal procedures a lower third plane of surgical anesthesia is required. To attain this depth of anesthesia intercostal paralysis is present many times with heavy diaphragmatic breathing. The wide excursions of the diaphragm are troublesome for the surgeon. However, if the anesthesia is required. To attain this depth of one must sacrifice a certain amount of muscular relaxation. Therefore, it becomes a question of "between the devil and the deep sea".

Spinal anesthesia gives marked relaxation with comparatively quiet breathing. The intestines are also contracted which greatly facilitates operative intervention. In the upper abdominal cases requiring spinal anesthesia we prefer the gravity technique of Sise. This method uses a

hyperbaric anesthesia solution, obtained by the addition of 10 per cent dextrose in the required amounts, and the placing of the patient in the Trendelenburg position for two or three minutes until the anesthetic level desired is obtained. Our experience in this series of cases has been limited to novacaine and pontocaine, which have proved highly satisfactory. In all cases in which spinal anesthesia is used to a level higher than the umbilicus we insert a nasal catheter for oxygen supply and maintain a continuous oxygen flow of six to ten liters per minute during the entire operation. For maintenance of the blood pressure and as a prophylactic against shock 5 per cent glucose is given intravenously throughout the operation. Occasionally an additional small dose of three to five milligrams of neo-synephrin are required to elevate a falling systolic pressure.

In operations that have consumed more time than we anticipated we have found the intravenous use of a small dose of morphine ($\frac{1}{8}$ to $\frac{1}{6}$ gr.) to be very effective where the anesthesia is beginning to wear off. Small fractional doses of 5 per cent evipal (1 or 2 cc.) or pentothal may be extremely helpful for the same purpose. In patients who become nauseated and who are continually retching the sub-peritoneal injection of 1 per cent novacaine by the surgeon anteriorly and posteriorly in the esophageal region will usually stop the reflex. Hiccup may occasionally be a troublesome symptom during high spinal anesthesia and this also is effectively controlled by very small doses of 5 per cent evipal, which may be administered via the tubing which carries glucose to the patient.

A word must be said here about the post anesthetic follow-up of patients having high spinal anesthesia. Atelectasis should always be kept in mind as a possible post-anesthetic complication. With an anesthesia which paralyzes the lower intercostals and which lasts from one and a half to two and a half hours the respiratory exchange is limited. Following the operation the patient receives opiates for the relief of pain, which further depresses respiration.

In addition to all of this the patient because of pain on deep breathing attempts to splint the upper abdomen by voluntary restriction of the respiratory excursion. These are all factors conducive to the production of atelectasis. Therefore, it is very important that these patients who receive high spinal anesthesia be followed up with hourly inhalations of carbogen; that they be required to voluntarily do some deep breathing every half hour and finally his position must be frequently changed. The importance of a vigorous follow-up cannot be stressed too strongly.

As we know, spinal anesthesia may be produced by any amateur who has learned how to do a lumbar tap, but in our opinion it should be used only by trained physician anesthetists

who thoroughly understand the pharmacology of the agents used and the physiology of untoward complications, and who are equipped and able to give the proper treatment should such a complication arise. In our experience we have had no cases of respiratory failure and we have found the incidence of post operative pulmonary complications to be somewhat lower in the upper abdominal group.

SUMMARY

Surgical procedures in the upper abdomen are difficult and require careful consideration of many factors for the selection of the best anesthetic agent.

A few of the factors always to be considered are: (1) Physical state of the patient, (2) operative procedure proposed, (3) operative premedication, (4) toxicity of the anesthetic agent, (5) ability and speed of the surgeon.

The more radical the surgery to be attempted the more potent the agent as a general rule. Inhalation anesthesia suffices for the simpler upper abdominal procedures, but for gastric surgery and operations upon the common bile duct spinal anesthesia is the most ideal.

High spinal anesthetics should always have a vigorous follow-up treatment and this type of anesthesia should always be under the control of a competent physician anesthetist.
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Use of Electrocardiogram in General Practice

There is no portion of general practice in which the electrocardiogram is of as much service as in the estimation and control of digitalis administration. To quote Dr. Frank Wilson, "No patient with cardiac failure and rapid ventricular rate should be given large doses of digitalis intravenously or intramuscularly until an electrocardiogram has been taken to make certain tachycardia is not the type made worse by digitalis." A-V dissociation with rapid ventricular rate or tachycardia with variable ventricular response are usually indicative of grave intoxication and fatal poisoning may be avoided by recognizing them.—Graham Asher, M.D., Kansas City, Mo.; *Jour. Mo. S. Med. Assn.*, Vol. 37, No. 5, May, 1940.

Treatment of Cancer of the Nose and Throat

EDWARD KING, M.D.

MALIGNANT disease constitutes a small percentage of the practice of the otolaryngologist. Yet it occurs frequently enough to demand our best efforts in diagnosis and treatment if we are to keep pace with the advancement in other fields.

I shall confine my remarks to the treatment of cancer of the nose and throat. My experience with cancer of the ear is not worth noting because it has been so rare.

We must be aware that the frequency with which we meet malignant disease depends somewhat on our diagnostic acumen. Cancer should be kept in mind when making the routine examinations in our daily practice so that early recognition may become possible.

It is our obligation also to instruct our colleagues and the public in the early signs of cancer, so that the patients will appear for examination early. The widespread publicity of the cancer control commissions has done a great deal to improve the chances of those afflicted. I am sure that as a result of their publicity we are seeing more cases early and that our results will be better as the knowledge on the part of the public increases. There is nothing more distressing and disheartening to the physician than a late neglected carcinoma. The early case is stimulating and tries our skill and ingenuity.

Each one of us can handle these cases adequately, provided the services of an experienced radiologist are available. Dr. F. T. Hill in a recent paper has pointed out the advantages of treating cancer in small hospitals. He believes the opportunities for after care and observation are better. The patient is able to remain at home where the expense is not so great. These are important points, and other things being equal, I believe the patient is better off in the smaller center.

Close cooperation between the surgeon and the radiologist is essential for the combination of well directed surgery and radiation is necessary in almost every case.

No doubt confusion has resulted from the failure of the radiologist and the surgeon to work together and to apply their combined methods. As an illustration of this confusion, I wish to cite a personal experience. In a paper presented before a general medical meeting by a well known radiologist, a question period brought out the statement that some of the best results were obtained by radiation of cancer of the larynx. At that time a case of carcinoma of the larynx was under my care in which laryngectomy

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had been advised because the tumor was intrinsic and surgery seemed the ideal method of treatment. As a result of the meeting, the patient was removed from my care and referred to the radiologist. The tumor disappeared very promptly but recurred in three months time with fatal results. Now I submit to you that this difference of opinion as to treatment is bound to lead us into difficulties.

We know that in well selected cases of intrinsic carcinoma of the larynx the results from surgery may be estimated at a much higher figure than has ever been reported by the radiologist. It is very difficult to compare surgical and radiologic statistics because the surgeon chooses the patients whose lesions are favorable, while the radiologist treats all patients.

In Vienna it was decided to treat all patients by the Coutard method. There was no unanimity of opinion regarding the therapy, but a five year plan was evolved in order that they might be able to say at the end of that time what radiation has done and what it has not done. I understand that the time will soon elapse.

It is pretty well recognized that intrinsic carcinoma of the larynx must be treated by surgical therapy. We must not lose sight of the fact that the radiologist should have his say in regard to these cases. Certainly he has a right to insist on preoperative therapy. I believe that much good will come from such a method.

Laryngo-fissure or splitting of the larynx is an operation which is readily done under local anesthesia and with very little shock to the patient. This is the operation which we all like to do. The tumor must be confined to one true

cord. If the tumor involves both cords or the anterior commissure, or if the tumor is subglottic, laryngectomy must be performed. I am profoundly aware of the small percentage of cases in which surgery is indicated because of the advanced stage in which the lesion is recognized. Certainly we all are agreed that the carcinoma which is extrinsic must be treated by radiation. We can only hope, as I expressed earlier, that more cases will come under our care when we can offer them surgery, if in the final analysis, it is the best treatment. It must not be forgotten that all cases treated surgically should receive post-operative radiation therapy.

The treatment of lesions at the base of the tongue and lateral pharyngeal wall must, in my opinion, be left to the radiologist. Cancer of the tonsil is seen rarely when operation is indicated, but even if seen early enough for surgery, the results must depend on the radiation. Nasopharyngeal cancer is quite rare and my experience with this area is nil. Carcinoma of the nose and sinuses should be treated by a combination of surgery and radiation.

Here it is best to say a few words about biopsy. Since the nose and throat are easy to approach, there is no reason why a biopsy should not be done. A piece large enough for adequate examination should be removed with a sharp knife if possible, so that as little trauma as possible is committed on the surrounding tissues. The patient should understand before the biopsy is performed that the treatment must be instituted at once if the growth is malignant. New has recommended the frozen section at the operating table.

Cancer of the nose and sinuses requires surgery of a radical kind if any benefit is to be obtained. We follow the practice described by Barnes in 1922. This is a modified Moure incision, with removal of a part of the skin flap to allow a permanent fistula for constant inspection of the cavity and for the easy application of radium. It is our custom to tie off the external carotid before operation on the nose and the bleeding is very much reduced by this procedure. The vast majority of the cases can be operated under local anesthesia. It is easier to see the areas involved and diathermy may be employed without risk if local anesthesia is selected.

It must be understood beforehand by the patient and the surgeon that a destructive operation is often necessary and no thought of cosmetic results will be entertained while doing a thorough operation which may save a life. If the patient lives, cosmetic operations may be performed for the correction of deformities. Through the Moure incision, the antrum may be approached and the upper jaw thoroughly eradicated. The lateral wall of the nose may be removed as well as the ethmoid, even removing

part of the floor of the anterior fossa if necessary.

When the orbit is involved, no hesitation should be shown in sacrificing the eye. It is surprising how much tissue can be removed without doing serious damage and without excessive bleeding.

Electro-coagulation is of great help in completing the operation. It can be employed for removing the tumor and to help control bleeding. At the end of the operation, it is especially useful in forming a fence around the area.

On completion of the operation, a large defect is left in the skin over the face, so that the operated region may be inspected easily for recurrences.

CONCLUSION

This, briefly, is a review of the function of the laryngologist in relation to cancer of the nose and throat. The points which should be emphasized are:

- (1) Early diagnosis.
- (2) Cooperation between radiologist and laryngologist.
- (3) Intrinsic cancer of the larynx should be treated surgically.
- (4) Combined surgery and radiation should be employed for malignancy of nose and sinuses, and a fistula should be left for inspection.

1002 Carew Tower.

Probable Effects of Testosterone

A careful history, physical and urological examination should be done in the prostatic before the use of testosterone is instituted. It is necessary to distinguish between prostatic obstruction due to benign hypertrophy in contradistinction to that produced by carcinoma, median bar, bladder neck contracture, prostatitis, or prostatism sans prostate. Obviously in these cases little, if any, benefit can be expected from sex hormone therapy. If used in these cases it will fall into disrepute. In benign hypertrophy, however, good results are obtained in about 65 per cent of cases reported and the observations of both theory and practice seem to warrant its employment. Large, soft prostates seem to respond better to its influence than those which are more firm. Needless to say, our knowledge of this hormone is in its embryonic state and its value will depend largely upon the careful examination, observation, the follow-up of our therapy, and in the unbiased attitudes which we take in our deduction.—C. J. Reynolds, M.D., Bluefield, W. Va.; W. Va. Med. Jour., Vol. 36, No. 5, May, 1940.

If children with active pulmonary tuberculosis outlive the first year of illness, they have a good chance of recovering completely.—Holm, S., *Acta Paediatrica*, June, 1939.

Mucocele of the Appendix

C. B. ELLIOTT, M.D.

MUCOCELE of the appendix is a relatively rare condition. Rokitansky in 1842, first described it as a pathological entity, then Virchow in 1863, reported a case which he considered to be a colloid degeneration of the appendix. The term pseudomyxoma peritonei was first used in 1884 by Werth because of gelatinous masses he found in the peritoneal cavity, together with a mucocele. Frankel, in 1901, then applied this same term to one he found which had ruptured and presented the gelatinous masses throughout the peritoneal cavity.

INCIDENCE

Castle found in reviewing 13,158 necropsies that only 2 per cent were mucoceles and Dodge, in 1916, in reviewing the literature found only 142 reported. Norment studied 45,000 appendectomies at the Mayo Clinic and found only 36 or one in 1,250 appendectomies. Later Mayo and Foster reviewed 31,200 appendectomies from 1917 to 1930 and found 76, while at the Hollywood Hospital seven were found in 6,225 appendectomies.

ETIOLOGY AND PATHOLOGY

The etiology is uncertain. As to age, it may occur at any age past early childhood but most cases reported are past 40 years of age. Sex has no bearing.

There are two definite pictures of the disease: First, when the mucinous fluid is held intact in an enlarged appendix, cystic in appearance. Second, when there is present, also, a diffuse myxomatous invasion of peritoneal cavity.

Due to the fact that the disease is more prevalent in those past 40 years of age, this suggests that there is some connection between involutionary changes and this cystic formation, plus some type of obstruction at the proximal end of the appendix, according to Boyd. This might be due to adhesions, kinking or inflammatory process, Masson and Hamrick think. The obstruction causes retention of secretions and this accumulated pressure in itself causes other altered or degenerated secretions. As these secretions increase in amount the appendix assumes a sausage or globular shape and may become extremely large. (The largest reported in the literature was about the size of a man's head.)

The muscular coat may become deficient or even absent and the mucosa may be found in all stages of degeneration, or absent also.

If pressure is sufficient, diverticulae may form and rupture. If this occurs then the mucinous

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fluid is found in the peritoneal cavity to which the term, pseudomyxoma peritonei, is applied. Mucin secreting cells may accompany the fluid and instead of being absorbed, become encapsulated by the omentum or connective tissue (due to local peritonitis); then they in turn may become distended by mucin and rupture.

THERAPY

Removal of the appendix and as much of the mucinous material as possible when it is present, with X-ray therapy postoperatively because of a pseudomyxomatous condition.

REPORT OF A CASE

Present History: Patient is a white adult, complaining of severe abdominal pain for the past 48 hours. He has had frequent attacks of vomiting with the pain. The pain for the first few hours was cramp-like but for the past 24 hours has settled into the right side and is constant. His bowels have not moved since the pain first appeared.

Past History: Has no knowledge of childhood diseases. Has had a severe attack of tetanus five years ago from a nail wound of the foot. He was in bed eight months at that time because of the infection about the nail wound. His history otherwise is negative.

Family History: Entirely unknown by patient.

Physical Examination: Patient is a 48-year-old white male, weighing about 190 pounds. He appears pale, apprehensive and acutely ill. The physical examination is essentially negative except for the abdomen. This is board-like in rigidity, more pronounced on the right side. Because of this, nothing else could be ascertained by palpation.

Blood Count: Red blood corpuscles 4,650,000; white blood corpuscles 6,200; the various constituents of which were normal.

Operation: A MacBurney incision was made, the abdominal wall opened in layers, peritoneum incised and opened. A sausage shaped appendix presented itself, protruding up into operating field at about a 45-degree angle with the abdominal wall. This was attached to the base of the cecum (taking up almost the entire base) and its contents, under considerable tension, was felt protruding back into the lumen of the cecum.

This protrusion was carefully expressed back

into lumen of the appendix. Its base then was clamped with an intestinal clamp, excised by means of a cautery. The base of the cecum then was closed with two layers of 00 plain catgut and a layer of interrupted linen sutures. The abdominal wall closed in the usual layers.

Pathologic Report: Gross examination: The organ measures $5\frac{1}{2}$ inches long, $4\frac{1}{2}$ inches in diameter at the base and 3 inches in diameter at distal fourth. It is filled with a jelly-like mucus. The wall is very thin, smooth and glistening with no evidence of inflammation or exudate about it. There is a constricting band about its base.

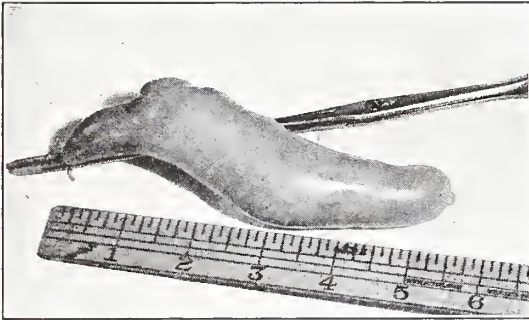


Figure I

Histological Examination: There is no mucosa, only a single layer of high columnar epithelial cells in the lining and there is no breaking of the basement membrane. The subepithelial and submucosa tissues are densely infiltrated with polymorphonuclear leucocytes. There are no lymphoid follicles.

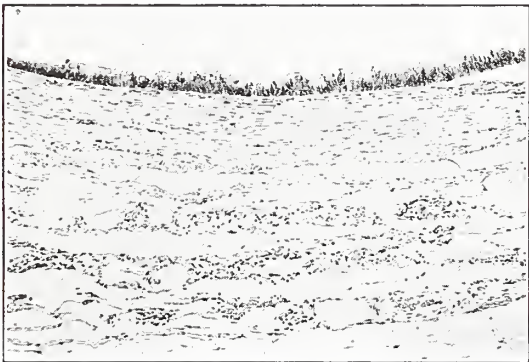


Figure II

Diagnosis: Mucocoele of the appendix. (No evidence of malignancy). This patient was operated upon three years ago and in a recent check-up has shown no evidence of malignancy.

SUMMARY

An abbreviated history of mucocoele of the appendix and pseudomyxomatous peritonei has been given with a short discussion of its probable causes and its therapy, together with a report of a case.

There are two aspects of the disease to bear in mind:

First, a clinical picture of appendicitis with a relatively normal white blood cell count.

Second, these cases should be considered as

possibly malignant and so treated or checked on following the operation.

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Value of Electrocardiogram in Diagnosis

A normal electrocardiogram is of great value in ruling out heart disease in the presence of questionable symptoms and findings, while a distinctly abnormal electrocardiogram greatly increases the probability that the symptoms are due to myocardial disease. In suspected rheumatic fever and postfebrile infectious states the use of the electrical tracing is of value in general practice. The ability of the heart to stand hypertension is best estimated by the electrocardiogram when left ventricular strain is followed. The degree of right ventricular strain in mitral stenosis, congenital heart disease and silicosis is detected only with the electrocardiogram.

A positive diagnosis of minor coronary infarction frequently cannot be made without the aid of the electrocardiogram, and frequently the curves not only give the best means of observing progress but of permanently recording it. Such graphic information is most valuable to insurance companies.

The commonest mistakes made by the occasional user of the electrical tracing is to overvalue the changes of obesity and to undervalue the small posterior lesions which resemble gall-bladder disease. Posterior lesions carry congestive failure of the liver even to the extent of producing large tender livers and slight jaundice. T wave changes of anemia and post-influenza states are frequently mistaken for chronic coronary disease. These, together with records of anterior chest leads, usually warrant specialized consultation. The extent to which poorly nourished hearts fail in their electrical response after exercise is demonstrated by serial electrocardiograms showing transient T or R-T segment changes, a new but sensitive means of more accurate prognosis.—Graham Asher, M.D., Kansas City, Mo.; Jour. Mo. S. Med Assn., Vol. 37, No. 5, May, 1940.

Rheumatic Fever in Children

ROBERT A. LYON, M.D.*

RHEUMATIC fever attacks only a few children, but cripples some of them for life and is a leading cause of death in the pre-adolescent period. About 1 to 2 per cent of the child population of the northern climates contract the disease, and in various surveys, 0.2 to 1.2 per cent of school children have been found to have cardiac murmurs due to the disease.

The most important symptom of rheumatic fever is pain in the joints, often migrating from one joint to another, and frequently accompanied by redness and slight swelling. "Growing pains" of such a nature should not be ignored, but muscle pains of the arms and legs probably result from unusual exercise, poorly fitting shoes, or fatigue, rather than from infection. Rheumatic fever may also cause abdominal pain, nose bleeding, chorea, irregular shaped areas of redness on the skin, and small subcutaneous nodules.

First attacks of the disease often occur in the winter and spring months, in children six to ten years of age, who live under the less favorable economic conditions. Respiratory infections and other acute diseases may initiate the rheumatic fever.

Even when the disease is suspected and an accurate diagnosis cannot be made, treatment should be started at once, the patient put to bed and observed over a long period of time. Aspirin or sodium salicylate will usually relieve the joint pains within a short time. Sedatives such as phenobarbital will quiet many children with chorea although some form of artificially induced fever may be necessary in severe infections.

Most important of all is complete bed rest for the child until the infection subsides, because in every attack, the heart is probably affected in greater or less degree.

The infection outlasts the acute symptoms. After the pain and fever are gone, the leucocytosis and anemia disappear, and finally, maybe weeks later, the sedimentation rate of the red cells returns to its customary level. This last test is a very important one in marking the termination of the infection.

When the infection is gone, the functional capacity of the heart becomes the next concern. Possibly only the myocardium has been affected,

maybe also the mitral or aortic valves or worst of all the whole heart, including the pericardial covering. The X-ray and the electrocardiogram may help in the diagnosis of the extent of the damage.

Whether the child may get up from bed or increase the amount of his activity or not, depends upon the degree to which the heart muscle has overcome the damage of the infection. Indications of good heart function are the slowing of the heart action to rates of less than 100 beats a minute when the child is resting and the maintenance of normal nutrition, growth and development. When these events take place, the patient may try a more active program. Careful observation must be maintained, however, to be sure that infection, tachycardia, irregular heart action, anemia, poor nutrition, and failure to gain weight do not recur. Violent exercise and competitive sports should be postponed for many months and a daily rest period should be recommended, together with ten or eleven hours of rest at night throughout the period of childhood and adolescence.

If the attacks of rheumatic fever persist or recur at frequent intervals, it may be advantageous to move the patient to a warmer, more equitable climate for at least the entire winter and early spring seasons.

Sulfanilamide in Range Paralysis of Chickens

Two years ago at the request of a patient whose flock of Leghorns was dying with range paralysis, I suggested the use of sulfanilamide purely as an experimental form of treatment. Testing it on a few birds he found it to be well tolerated and apparently non-toxic to fowls.

The drug was then given in 5 grain capsules to over 2000 hens, each one receiving a capsule each week for three weeks. The effect of the drug on the disease itself was most interesting and the results will shortly be published.

One unusual feature of the experiment was the fact that after each dose of sulfanilamide over half of the hens laid eggs without shells and the rest laid eggs with either thin or rough shells. This phenomenon lasted about three days and was repeated each time the drug was given. To me this was of interest because in it may lurk a clue as to the mode of action of sulfanilamide.—Hugh C. Winbigler, M.D., Mansfield, Ohio.

*From the Department of Pediatrics, Cincinnati General Hospital.

Dr. Lyons was selected to write an editorial summary on the above topic by a committee of ten leading Ohio pediatricians.

Chronic Acetanilid Poisoning

Report of a Case

NICHOLAS MICHAEL, M.D.

ACETANILID, the monoactyl derivative of aniline, is mainly used as an antipyretic and sedative. It is often distributed over the drug counter as one of the ingredients in "headache powders" and its continued use in this form will sometimes produce certain toxic symptoms known as chronic acetanilid poisoning. This condition is characterized by cyanosis, wasting, anemia, reduction in hemoglobin, frequent pulse, dyspnea, excitability and delirium resembling a manic like reaction.

CASE REPORT

A.P., white male, aged 42 years, married and father of a 16 year old girl, was admitted to the Columbus State Hospital March 18, 1939. The family history did not show any evidence of hereditary taint. The developmental history was entirely negative. He left college in 1917, during his third year in chemical engineering to join the Army but did not go over seas. He remained in the Army for about a year after the War and later went into private business as a contractor. In 1923, his wife became mentally ill. She was admitted to the hospital and diagnosed psychosis with somatic disease, puerperal. She recovered in a few months.

The patient began the use of bromoseltzer because of "severe" headaches in 1917, gradually increasing the dose until he was taking a 25 cent (three ounce) bottle daily for the last five years. Relatives noticed blueness or cyanosis five or six years before admission. The thyroid was noticeably enlarged two years ago, but repeated basal metabolic rates were normal. He refused a thyroid operation.

He became restless and the family physician sent him to a general hospital. There the restlessness continued until he seemed to be delirious. He developed delusions and hallucinations. He thought a party was in progress in the hospital and wanted to go to it. He refused to eat, became unmanageable and struck at the nurses. He was then transferred to the Columbus State Hospital.

Physical Examination: Patient was noticeably dehydrated. Cyanosis or dusky, bluish discoloration was generalized, but more marked over the face. The thyroid was enlarged to at least four times its normal size. Pulse was 114. Blood pressure was 200/105. The elbow and knee reflexes were hyperactive but equal.

Laboratory Findings: Repeated examination of urine showed 80 to 20 mgms. of albumin and numerous leucocytes. Red blood count 5,630,000; hemoglobin 100 (Dare); color index 89; white blood count 7,400, with 69 per cent neutrophils and 29 per cent lymphocytes. Sedimentation rate 21 mm. per hour. Blood bromide on March 21 was 100 mgms. per 100 cc. of blood. N.P. on March 25 was 72 mgms. On April 6 N.P.N. was 29 mgms. and urea nitrogen 12 mgm. Blood Kline and Kahn negative.

Mental Examination: He was restless, noisy and confused. His talk was irrelevant, rambling and sometimes incoherent. Refused to stay in

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bed, struck and cursed at the nurses, and seemed to dislike anyone in white. He had both visual and auditory hallucinations. He saw someone in the window, called the names of various persons and conversed with them. He thought his wife and folks were in the hospital and were not permitted to see him. He seemed fearful of injury and thought the food was poisoned. He showed memory and orientation defects.

Progress in the Hospital: The dehydration was relieved with parenteral fluids and marked improvement was evident within 48 hours. The mental symptoms completely subsided with no evidence of psychosis after April 1. A subtotal thyroidectomy performed by Dr. Andre Crotti on April 7 was successful. The microscopic section of the thyroid showed a nodular, colloid goiter with hemorrhage, degeneration and calcification. He went on trial visit on March 5, apparently recovered. The cyanosis had gradually faded but was still noticeable on the lips at the time.

Recent Observations: This man was observed on January 17, 1940, and at that time his cyanosis had completely faded. He had not taken any bromo-seltzer and did not complain of headaches. He seemed normal in every way except for the hypertension which still was 180/100.

COMMENT

This case was diagnosed according to the classification as psychosis due to drugs, bromo-seltzer. This drug which contains 3 grains of acetanilid and 7 grains of potassium bromides per dose is often sold over the counter in drug stores and confectioneries for headaches. It is possible the bromide was a factor in the production of the psychosis but the bromide content in the blood was only 100 mgms. per 100 cc. This was considered normal by our method. With the exception of possible psychological factors, the enlarged thyroid did not play any part. It was not toxic and the basal metabolic rate was always within normal limits. The basis for the headaches could not be determined but it was interesting to note that he did not complain after the cessation of symptoms. With the exception of the wasting anemia and reduction of hemoglobin, the symptoms were typical of chronic acetanilid poisoning. The continued use of compounds containing acetanilid are habit forming.

Case Record Presenting Clinical Problems

Pathological Diagnosis

HARRY L. REINHART, M.D.

THE patient was a four-months-old white male infant who was admitted to the hospital because of severe anemia, loss of weight, cyanosis and breath holding spells. He had a normal spontaneous delivery at term and weighed eight pounds. He was cyanotic at birth and since then has laid on his right side in a position of opisthotonus. A diagnosis of congenital heart disease was made and a poor prognosis was given for life. At four days of age he was taken from the breast, and although numerous different formulas have been tried, he never did well. At two months of age he weighed six pounds and four ounces or one pound and twelve ounces less than his birth weight. Severe chronic constipation necessitated milk of magnesia or enema. On two occasions about two months ago he bled for eight to twelve hours from small scratches. Three weeks prior to admission he was hospitalized and given four blood transfusions, several infusions, X-ray therapy over the spleen, and iron for anemia. He was fed by gavage or Breck feeder at that time.

Family History: His mother is 21 years and his father 19 years of age and are living and well. The patient was the first child. Both maternal and paternal grandparents are living. The maternal grandfather is said to have heart disease. There is no history of syphilis, tuberculosis, cancer, blood disease or any other familial disease.

Physical Examination: The patient was a small dehydrated and marasmic infant weighing six pounds and eleven ounces. He lay with his head turned to the right and hyperextended, and resisted movement to any other position. The skin showed a bluish-gray cast and numerous ecchymoses. There were puncture wounds on the scalp, wrists, ankles and neck. Some of these were secondarily infected. His head was large and his hair was sparse and fine. The anterior fontanelle was normal in size but depressed. His ears were normal externally; the drums showed no pathology. The eyes gave the impression of being exophthalmic and were widely separated. The pupils were equal and reacted to light. Extraocular movements were apparently normal. The fundi showed pallor of both discs and pale irregular areas on the retina presented pigmented margins. There was a profuse purulent nasal discharge and nasal obstruction. The lips were pale and covered with dry crusts and the palate had a very high arch. There were no teeth present. Enlarged, cryptic tonsils were present and there was a large amount of mucus in the posterior pharynx. The right sternocleidomastoid muscle was tense but no masses were palpable. His chest was poorly developed with a wide costal angle, marked Harrison's groove and moderate flaring of the costal margin. The costochondral junctions were rounded and enlarged. The heart was not enlarged to percussion; the sounds were of fair quality and no murmurs were heard. The lungs were resonant to percus-

sion and the breath sounds were of the puerile type; a few rhonchi were heard over the intercapular region. His abdomen was slightly rounded and the liver was palpated 3.5 cms. below the right costal margin in the mid-clavicular line and the spleen extended approximately 4 cms. below the costal margin in the left anterior axillary line. There were no other masses palpable and no tenderness or spasm could be elicited. The genitalia were those of a normal circumcised male with the testicles descended. The extremities were scrawny and there was evidence of loss of subcutaneous fat. All the joints seemed large. On neurological examination the reflexes were difficult to evaluate due to generalized spasticity. The Babinski was negative. There was no clonus. The Kernig was negative. The neck was resistant but not rigid. In general, his activity was not that of a normal four-months-old infant. He had sudden crying spells when disturbed during which he became rigid in hyperextension. His cry was hoarse, followed by a period of apnea with extreme cyanosis. His existence was vegetative with no response to the environment.

Laboratory Data: RBC 4,200,000 per cu. mm.; Hgb. 13.7 grams; WBC 11,150 per cu. mm. Differential: Polys 64 per cent; myelocytes 2 per cent; basophils 1 per cent; eosinophils 3 per cent; lymphocytes 12 per cent; intermediate lymphocytes 3 per cent; monocytes 12 per cent; young forms 1 per cent. Platelets 92,400 per cu. mm. Reticulocytes 2 per cent. Poikilocytosis, anisocytosis and achromia of erythrocytes were marked. Cell volume 29. Sedimentation rate (corrected) 0.1 mm. per minute. Icterus index 5. Red cell fragility 0.412 to 0.3. Bleeding time 2½ minutes. Clotting time 4 minutes. Urine showed an acid reaction, albumin negative, 10-12 RBC per high power field. Serum calcium 8.8 mgm. per cent; serum phosphorus 1.94 mgm. per cent; serum phosphatase 14.3 units. Blood culture was negative. Three stool cultures were negative for non-lactose fermenters except *alkalinigenes fecalis*. The stools were positive for occult blood. EKG showed right axis deviation and sinus tachycardia. X-rays showed generalized osteopetrosis and rachitic-like deformities of the ends of the long bones.

Course and clinical therapy: The patient was put on an evaporated milk formula by gavage. Various forms of vitamin preparations were used, and he was also given aqueous liver extract and calcium gluconate. There was a progressive fall in red cells and hemoglobin, and on the tenth, eleventh and twelfth days he received 100 cc. of blood from a compatible donor. Following the third transfusion the patient had gross hematuria. At the end of one month the patient weighed six pounds, thirteen and three-quarter ounces. The blood showed 2,730,000 red blood cells and 9.2 grams of hemoglobin. There had been intermittent bouts of fever with a maximum rise to 102.4°. This was attributed to the rhinopharyngitis which persisted despite local therapy. On the thirty-ninth, fortieth and forty-first days he received 50, 50 and 45 cc. of blood respectively from a compatible donor without a transfusion

This is the fiftieth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Stirling Loving Hospital, Ohio State University, Columbus, Ohio.

reaction. At six months of age he weighed eight pounds, one ounce which was one ounce more than his birth weight. He continued to have breath holding spells with cyanosis. There were numerous spontaneous ecchymoses over the skin. His blood picture was approximately the same as at the end of the first month of hospitalization. In the following four months there was a slow weight gain despite fever and progressive anemia to a maximum of ten pounds, four ounces. The patient showed no evidence of mental or physical development. He was continued on the regimen outlined above without transfusion. On the 180th hospital day he suddenly developed rapid respirations and physical examination showed widespread rales and rhonchi throughout both lung fields. He rapidly sank into a comatose state and died on the 183rd hospital day.

Clinical Diagnosis: Osteopetrosis, congenital; Myelophthisic Anemia; Terminal Bronchopneumonia.

Discussion: Dr. Emma Boyle.

This patient was the type of diagnostic problem which is readily recognized as a rarity. When X-rays were taken, marked generalized and uniform increase in the density of all the bones was the most striking peculiarity observed. "A diffuse increase in density of bones with obliteration of the shadow of the marrow cavity and loss of the finer markings of bone structure, is characteristic of osteopetrosis". McCune-Bradley. The epiphyseal ends of the long bones were wide and irregular suggesting rachitic or congenital luetic changes. The patient had had adequate Vitamin D intake. There was no history of syphilis and the patient's serology was negative. The clinical and roentgen picture was characteristic of the condition called Albers-Schönberg disease, "Marble bone disease", osteosclerosis fragilis, or osteopetrosis. The forms of the disease vary in degree from partial involvement of several bones to the complete involvement of the whole skeleton. The latter form which this patient had is inconsistent with life.

The general appearance of the large head, maldeveloped chest and deformed extremities may suggest some congenital disease. Dentition is usually delayed or incomplete as in this patient who at almost a year of age had no teeth. Blindness is common and this patient, who gave no evidence that he could see, had optic atrophy with other retinal changes. Hepatomegaly and splenomegaly have been thought to be due to extramedullary blood formation but have not paralleled the degree of anemia. The common symptom which never presented itself in this patient was the occurrence of multiple, pathological fractures. The paradoxical occurrence of pathological fractures in so-called "marble bones" is now understood from pathological investigations. The disease was named after Albers-Schönberg on the basis of his description of the X-ray appearance. Pathologically the dis-

ease seems to be a developmental abnormality of the preosseous mesenchyme. There is incomplete resorption of cartilagenous framework and abnormal osteogenesis with decrease in osteoclasts and osteoblasts. The spicules of bone in the shaft are more numerous than normal and a cartilagenous matrix is still present. This results in inelastic and brittle bone despite the increased density on X-ray.

The normal hematopoietic function of the marrow cavity depends upon the resorption of spicules of bone formed in the shaft of the bones and at the epiphyseal ends. This process of resorption fails and the marrow cavity shows inadequate development. There is also fibrous replacement of the marrow cavity. A severe myelophthisic anemia is the result. There is evidence that active rickets or rachitic-like changes are consistently present in the epiphyses although Vitamin D intake is adequate. What the metabolic disturbances of calcium, phosphorus, phosphatase and Vitamin D may be, are not clearly known.

Dr. Reinhart:

Anatomic Diagnosis. Generalized osteopetrosis (marble bone disease); acute bilateral confluent bronchopneumonia; internal hydrocephalus; cortical atrophy of cerebrum; marked anemia with purpura; chronic splenic tumor.

The marked clinical improvement reflected in gain in weight, and alleviation of anemia were a tribute to the care and management of this child in the hospital. These results were obtained in the face of the hopeless outlook conditioned by hydrocephalus and a vegetative mode of life precluding any mental and little physical development; replacement or failure of formation of primary centers (bone marrow) of blood formation by the hyperplastic bony tissue with insufficient extramedullary blood formation for maintenance of life resulting in a general constitutional inadequacy for self-maintenance. With a low grade, persistent rhinopharyngitis resisting all therapy and exhibiting exacerbations and remissions, it was only a question of time until development of some vital function resulted in death; such a development is illustrated in the acute termination with bilateral bronchopneumonia.

"Marble bone disease" alludes more to the appearance of the bones on X-ray examination than the actual physical character of the bones themselves, which is chalky and frequently associated with spontaneous fractures.

Note: As the familial occurrence of this rare disease has been noted in the literature, it is of interest that a follow-up on a subsequent pregnancy was made. This pregnancy terminated at the eighth month of gestation with the birth of a premature infant weighing about four and a half pounds. X-rays of the skeleton of this infant showed identical bone changes.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

TUBERCULOSIS IN ADOLESCENTS

THE case fatality rate of pulmonary tuberculosis cannot be determined unless we follow a large number of cases from the time diagnoses are made until the death of all the individuals concerned. Unlike acute communicable diseases, tuberculosis is a disease of long duration. It may be acute, but is more often chronic, with periods of quiescence followed by exacerbations and may so continue for years.

We may, however, measure the effect of treatment by checking against each other, groups of similar age who have been treated by different methods for the same length of time. The authors studied the records of 245 cases who had parenchymatous pulmonary tuberculosis at the time they came under observation. Most of them received treatment in some sanatorium. These were divided into three groups according to the time they had been under observation, namely, Group A, from 5 to 10 years; Group B, from 3 to 5 years; Group C, less than 3 years.

The type of treatment received by these groups, further divided according to stage of disease, was found to vary during the past 10 years. There was a trend away from routine bed-rest treatment for a preliminary try-out period to be later supplemented by pneumothorax if the disease were not controlled. The present practice is to institute pneumothorax promptly. The minimal cases of Group A admitted to Middlesex County Sanatorium (prior to 1934) received no immediate treatment with pneumothorax; 40 per cent of Group B were given pneumothorax promptly; of Group C, 87 per cent were given pneumothorax soon after admission.

The conclusion of the authors, based on their own studies and supported by those of others, are that the mortality from tuberculosis in adolescents is high and treatment very discouraging. Morgan, reporting in 1938 on 320 cases of boys and girls 10 to 18 years of age treated in the sanatorium prior to 1933, found that 62 per cent were dead, 14 per cent under treatment, 17 per cent well, and 7 per cent not located. The treatment in this series consisted of prolonged bed-rest supplemented by pneumothorax in a few cases, and then given only after a period of waiting. Zacks recently studied 186 cases treated in sanatoria and observed for a period of about four years. Those that had routine sanatorium treatment only, showed a mortality of 30.9 per cent for boys and 34.4 per cent for girls; those

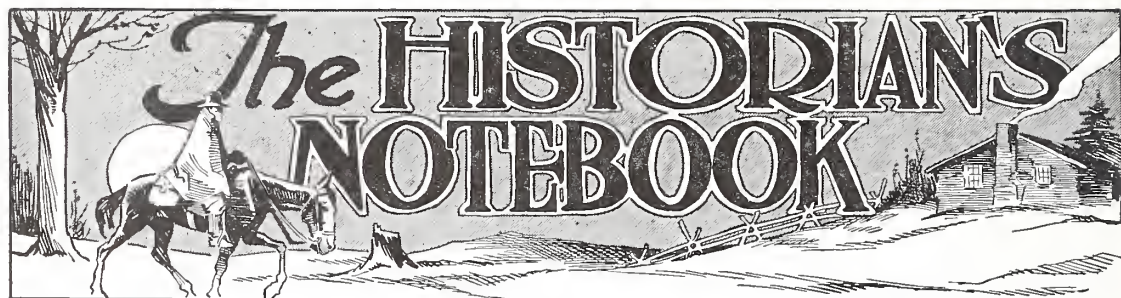
that had sanatorium treatment plus pneumothorax, showed a mortality of 8.5 per cent for the boys and 23.1 per cent for the girls. In the authors' group observed for 5 to 10 years, the deaths were 4.8 per cent for the boys and 27.5 per cent for the girls. Half of these cases were given pneumothorax.

Pneumothorax should be instituted as soon as possible after diagnosis is made even in the minimal cases and this should be supplemented by pneumonolysis if satisfactory collapse is prevented by adhesions that can be cut. Ineffective pneumothorax should be abandoned and some other surgical procedure carried out. When a satisfactory collapse with pneumothorax is obtained, it should be continued for a minimum of three years and for five years in the cavity cases.

Patients discharged from the sanatoria should be considered as having completed only the first phase of treatment and should return at frequent intervals for consultation during subsequent years. If they are pneumothorax cases, they will have their refills and in any event their condition will be rechecked. A roentgenogram taken every three months will be the most important means of following the course of the disease. If the old lesion shows reactivation, or a new one appears, prompt readmission and suitable treatment should be instituted at once.

The evidence available in this and other studies indicates the ineffectiveness of bed-rest treatment alone in staying the progress of tuberculosis in adolescents.—Henry D. Chadwick, M.D. and Helen W. Evarts, *Amer. Rev. of Tuber.*, Vol. XLI, No. 3, Mar., 1940.

Tuberculosis Among College Students—During 1937-1938 over 64,000 students were given tuberculin tests with 25.8% showing positive reactions. Since 1932-33 when the first figures were collected there has been a steady increase in the number of tests and a slow but steady fall in the percentage of reactors. "The value of the tuberculosis program to the individual student, whether he be the patient or the protected, is incalculable", reports the Committee. "The effect of finding tuberculosis is justified by the educational value alone. It is a demonstration of how lives can be saved and the community safeguarded. This is hygiene that actually operates."—Ann'l. Rep. Tuber. Comm. of Amer. Student Health Assn., 1937-1938.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Practical Essays on Medical Education, and the Medical Profession, in the United States

By DANIEL DRAKE, M.D.

1832

ESSAY I

SELECTION AND PREPARATORY EDUCATION OF PUPILS

OF the various occupations in society, scarcely one requires greater talent and knowledge, than the medical profession. This is especially true in the United States, where almost every practitioner must be, at the same time, physician, surgeon and apothecary. Obvious as this proposition is to many, its truth, unfortunately, is not generally perceived by those who are about to dedicate their sons to the profession—in other words, by the persons who, above all others, should feel and acknowledge its reality. Hence it results, that the ranks of the profession are in a great degree filled up with recruits, deficient either in abilities or acquirements—too often indeed in both—who thus doom it to a mediocrity, incompatible with both its nature and objects. Other causes contribute to its degradation; but this I am persuaded is one of the most frequent and most difficult to obviate. Still much to be done, if those who have the power, would open their eyes to the evil, and exert their influence in its suppression.

Few of those who are put to the study of medicine, can be aware of the magnitude of the undertaking, or of the insufficiency of their capacity and preparation; for the obvious reason, that they are, in general, young and inexperienced. There are, however, two classes of persons, who might be expected to judge more correctly, and have much in their power. These are parents and physicians, both of whom rather than our sons, should feel responsible to society on this subject; and to them I beg leave respectfully to address myself.

In the selection of boys for the study of medicine, many circumstances entirely disconnected with their fitness, too often exert a dominant influence; when their sway should be kept subordinate, or even regarded as entirely inadmissible. A neighbouring physician wants a student to reside in his office; or one son of the family is thought too weakly to labour on the farm or in the work shop; he is indolent and averse to bodily exertion; or addicted to study, but too stupid for the Bar, or too immoral for the Pulpit; the parents wish to have one gentleman in the family, and a doctor is a gentleman:—these and many other extraneous considerations, not unfrequently decide the choice and swell the numbers, while they impair the character of the profession.

Both parents and physicians should know, that boys of feeble frame and unsound constitution, cannot endure close study, and are best strengthened by hard labour; they should not, indeed, ever be put to the learned professions, unless they chance to possess extraordinary genius. Every physician must have seen many, who dragged out the whole period of their brief and reluctant pupilage, with dyspepsia, a pain in the breast, or hypochondriasm; conditions which either preclude all intense and successful application; or render it the cause of some other distressing malady, which terminates in premature death.

But it is not sufficient that boys selected for the study of medicine, should have good constitutions; they ought, equally, to be endowed with

vigorous and inquiring minds. Without these, whatever may be the appearance of success, they must at last make incompetent physicians. It is especially and indispensably necessary, that they possess, in a high degree, the faculties of observation and judgment; without which, they can neither comprehend the principles of the science, nor apply them correctly in the treatment of diseases. Notwithstanding this obvious fact, hundreds are put to the study of medicine, whose utmost grasp of intellect never encompasses the rudiments of the profession. As a matter of course, they slur over every difficult proposition; and afterwards grope their way for forty years, unconsciously committing "sins of omission or commission," throughout the whole of that long period. It is in vain to rely on society to correct this great evil, by discriminating among the candidates for their confidence; for the knowledge necessary to a correct selection, does not exist among them. In the other learned professions, this species of empiricism cannot produce the same mischief. The incompetent Divine, at most but occupies the place of an abler teacher, and the superficial Lawyer, is either driven from the Bar, by the exposure of his errors, or they are rendered harmless, by the skill of competent associates. But the physician, who has passed through the usual forms of a professional education, without the capacity to improve by his opportunities, is presumed by the people, to be qualified for every emergency; and sometimes even preferred to the ablest practitioners.

The student of medicine should not only be of sound understanding, but imbued with ambition. A mere love of knowledge is not to be relied upon, for the greatest lovers of knowledge, are not unfrequently deficient in executive talents, and go on acquiring without learning how to appropriate. Let parents, therefore, not be misled by the signs which indicate a fondness for study, unless the desire involves a feeling of emulation. A thirst for fame, is indeed a safer guaranty, than a taste for learning; as it generates those executive efforts, which are indispensable to the successful practice of the profession.

Further, the temperament of the youth, should be that of industry and perseverance; without which he will balk at every difficulty, and require to be goaded on through all stages of his pupilage. An indolent irresolute student, whatever may be his genius, can never figure as a physician; and should, without delay, be apprenticed to some vocation, in which the destruction of limbs and life will not be the inevitable consequence of idleness and discouragement.

Finally, parents who are too poor to afford their sons the necessary opportunities, should not aim at making them physicians. If we now and then see one, whose talents, ambition and enterprise, have enabled him to acquire distinc-

tion, in despite of every obstacle, we meet with many more, who all their lives remain unfinished and imperfect, from the want of adequate time and opportunities, while engaged in their professional studies. I am the more disposed to insist on these truths, because so many fathers are ignorant of what is really necessary to make their sons good physicians; and place them to the study of physic before they have accurately counted the cost. Of all the causes which impede the progress of medicine in the United States, not one is more operative than this. The amiable vanity in which it originates, can scarcely be condemned, but parents should be admonished to look at the consequences of such an indulgence of feeling. Under the most limited opportunities, a son can make acquirements that may satisfy a fond father, who knows but little of the extent and complexity of the medical sciences; to be prepared, however, for the various exigencies of the profession, is a much more difficult affair. Paternal affection may blind us to the errors of our sons, but cannot obviate their prejudicial influence on society.

Having briefly considered the moral and physical qualities which fit young men for the study of medicine, I come now to say, that a majority of those who are selected for that purpose, are deficient in one or both classes of requisites. Let us enquire into the principal causes of this state of things—so unfavourable to the dignity of the profession and prejudicial to the interests of humanity.

The current opinion, that men of slender abilities are competent to the practice of physic, is, obviously, a great cause why so many feeble minded boys are dedicated to its study. There never existed a time, when this opinion was well founded. In past ages, when medicine could not claim a place in the ranks of philosophy, it was still a science of observation, and called for an acute and discriminating mind. Though it could not rise above the grade of an experimental art, it never sank to a trade the results of which were purely accidental, except when it fell into the hands of the imbecile or the unprincipled. At the present time, when the intricacies of the human structure have been unravelled, and many of its functions are understood; when the accumulated experience of centuries has developed numerous general truths, and the spirit of inductive philosophy has arranged them into a science—imperfect it is true, but still a science—when chemistry, natural philosophy, botany and natural history, have become essential preliminary branches, nothing can be more adventurous, than to engage in the study of the profession without a logical and comprehensive mind.

Another cause of the evil which we deprecate, is the liberal proportion of inferior men, who

unfortunately belong to the profession, and so often succeed in acquiring business and popularity. An observation of this fact, not a little mortifying to the more talented members of the profession, encourages parents to set apart for the study of medicine, those sons who are least remarkable for strength of mind; reserving, the better class, for pursuits which, in their opinion, require more vigour of intellect, or promise greater distinction. Thus a degraded state of the profession is made to perpetuate itself, by influencing not only the ignorant, but the well informed; for when a father, who has a just estimate of the strong talents necessary to the study and practice of physic, apprehends that a son, of whose genius he is proud, may, on entering the arena, meet with many whose emulation is vitiated with envy; who labour to please rather than preserve their patients; or whose skill consists more in the arts of imposture than of cure; it is not unnatural for him to shrink from the anticipation of the rude struggle.

The root of this great evil is planted in society itself. Some persons are too dull to discriminate among the members of the profession, others allow themselves to be captivated by pleasant manners, and not a few call for cheap doctoring, all of which tend directly to elevate false pretension and depress real merit.

But there are causes which attract, as well as repel, young men of genius from the profession.

It will not be denied, that no passion is more intense and universal, than the love of gain. If not the first to be developed, it is the last to be extinguished; and, taken in the aggregate, perhaps no other exercises so much sway over the course and conduct of man. But in most parts of the United States, the practice of medicine offers little to gratify this desire, in comparison with commercial pursuits; and hence we find, that they exert an influence, which draws into the vortex of trade, no inconsiderable part of the talents and enterprise of the nation.

Strong, however, as the attractions of commerce unquestionably are, their influence is trifling, compared with those of law and politics. In no other country is the union of those two sciences so intimate, as in the United States. The regular course of promotion is from the county court house to the capital of the state, thence to the halls of congress, and, finally to the presidential palace; whose lofty entablatures, by a kind of looming, are seen with magical effect from every part of the Union.

It is marvelous to see with what lustre, the "seals of office glitter in the eyes" of the good people of these United States. The whole world furnishes no parallel case. The number of state

The Committee on Medical History and Archives of the Ohio State Archaeological and Historical Society will welcome anything relating to the practice of medicine, including dentistry, pharmacy, nursing and like activities, books, reprints, transactions, instruments, prescriptions, account books, saddle bags, instrument cases, diplomas, letters, diaries, genealogies and photographs.

Contributions should be sent to Jonathan Forman, M.D., chairman of the Committee, care of the Ohio State Archaeological and Historical Society, Museum, Ohio State University Campus, North High St., Columbus, Ohio. Such contributions will be properly and permanently preserved in the Museum of the Society.

and federal offices is so great, as to awaken political aspirations on our entire male population; and some of them are invested with sufficient emolument, power, and patronage, to excite the most intense emulation—I ought rather to say, the angriest rivalry. Thus are the genius and ambition of the nation drawn into the race of political glory. But for this, the law would scarcely exert stronger attractions upon the talent of the country, than medicine; for its own intrinsic rewards are not of a higher order, as the problems which it offers, do not require for their solution, a greater amount of intellect, than the practice of medicine. How long this will continue to be the case, it is difficult to foresee; but as our population is progressive, while the number of political offices is nearly stationary, we may hope that the time is not distant, when the proportion of talented youth who are dedicated to the study of physic, will be much greater than at present.

The consequences of this deficiency of talent in the profession, are of serious import to the science and to the people at large. It is unquestionably one of the causes, which retard the progress of discovery and improvement. Of the thousands who annually go forth with diplomas or licenses, or without either, to engage in the practical duties of the profession, very few ever contribute a single new fact to its archives, or communicate an impulse to the minutest wheel in its complicated machinery. Acting on the precepts of others, they may, it is true, do some good, but they also do much harm; while to the great work of revising and correcting the principles of the science, they are, of course, utterly incompetent.

But this incompetency is not the effect of inferior talents only, it results, perhaps, in an equal degree, from want of education and mental discipline, on the extent and causes of which I shall now proceed to speak.

(Continued in July issue)

President's Address

PARKE G. SMITH, M.D., CINCINNATI, OHIO

AS is true in most organizations, it has become customary for the President of the Ohio State Medical Association at the end of his term of office to deliver what has been known as a presidential address. Neither custom nor constitutional requirements prescribe the form or the contents of such an address. Because of the time this address is given, I choose to believe that its nature should be that of a report of the activities and accomplishments of the Association during the past year, and that the President, in addition, is obligated to convey to the membership the impressions he has gained from his experiences during that year, particularly as to the trends and changes that are constantly occurring in the practice of medicine. I shall, therefore, confine my remarks to a brief report of what your Association has been doing during the past year, and what, I believe, may be some of its activities in the near future. Much, if not all, of what I will say can be found in a more detailed and elaborate form in the annual reports of the various committees and departments of the Association, published in the April issue of *The Ohio State Medical Journal*.

HOW STATE ASSOCIATION FUNCTIONS

During the past year while on numerous visits to various parts of the state, I was somewhat surprised to find that a good many of our members are apparently unfamiliar with just how their State Association works. Although a description of your own Association may not be properly a part of a presidential address, I believe that the necessity for each of you familiarizing yourself with it warrants the following remarks.

Your governing body is the House of Delegates, which meets during the Annual Meeting. In the interval between Annual Meetings, direction of the activities of the Association is the responsibility of The Council. This executive body is composed of the president, president-elect, past-president, treasurer, and the councilor from each of the eleven districts.

Working in cooperation with and under the jurisdiction of The Council are several standing committees and, as need arises, special committees studying particular problems. Thus the administrative force of your organization is composed of a group of approximately 125 of your members. The results of the studies of these committees and of The Council, the minutes of their meetings, and the policies determined by them, are published from time to time in *The*

Ohio State Medical Journal, and matters of extreme importance are called to the direct attention of the officers of the component county medical societies by special bulletins and letters. Because we have such a large membership it is impossible to circularize all members unless some great emergency develops. Therefore, it is the duty of all county societies to see that the information received by them is passed on to their members. Also, it is the duty of all members of the Association to keep themselves informed of the activities of their Association by following reports and articles appearing in *The Journal*.

During the past year all of our standing and special committees have been exceedingly active. There has hardly been a week-end that has not seen at least one committee meeting being held in our State Headquarters Office at Columbus.

I should like to take this opportunity to express my personal appreciation for the magnificent spirit of cooperation, the vision, and the unselfish giving of time, which have characterized the work of all of those who have taken a part in the activities of the State Association during this past year.

SOME IMPORTANT ADVICE

In reviewing the work of the Association during the past year, I should like first to refer to the report of the Committee on Judicial and Professional Relations. I urge that each and every member of this organization thoroughly familiarize himself with the contents of that report. In it you will find suggestions and advice which, if followed, will be of extreme value to you in preventing the embarrassment and harm of malpractice suits. This report likewise merits the attention of officers of all of our component county medical societies, for in it they will find practical suggestions about the content of a local constitution and by-laws, particularly that portion outlining procedure for disciplinary action. Regardless of how recently its constitution and by-laws have been studied or revised, it would be well for each society to appoint a special committee to analyze the laws and resolutions constituting its organic law, especially the disciplinary sections to determine whether the method of procedure is clearly stated and is such that the interests of all are thoroughly protected.

The Committee on Public Relations and Economics is one of the most important of our committees. Its investigations cover many phases of our work, not the least important of which is its interest, through a sub-committee, in legislative matters.

At the time of our Annual Meeting last year

Annual Address of the President, delivered at the first session of the House of Delegates, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14, 1940.

we were in the midst of a general legislative session, and I am happy to report, largely through our activities, no legislation detrimental to public health was enacted, but a number of really constructive proposals, which we supported, became laws.

LEGISLATIVE ACTIVITIES

I am firmly convinced that the pre-election activities of the members of our Association played an important part in the constructive work the Association was able to carry on last year. While we are in no sense a political body, nevertheless, we, as a profession, are charged with the responsibility of protecting the health of all citizens, and if we are to assume our full responsibility we must play an active part in guiding all legislative activities which have to do with health. We must continue to carry on effective activities of this kind.

Shortly after the last Annual Meeting, your Association was called upon to send an official representative to Washington to testify at hearings being held on the so-called Wagner National Health Bill. Also, our legislative committee, assisted by local legislative committeemen, interviewed members of Congress about this proposal. In doing so, we assumed our full responsibility in the efforts of the medical profession, which resulted in preventing the enactment of this dangerous piece of legislation.

RELATIONS WITH STATE AGENCIES

Another sub-committee of this parent committee is that having to do with the Workmen's Compensation. During the course of the year many meetings have been held by this committee with the State Industrial Commission, and individual members of the Commission and its division heads. There is a fine spirit of cooperation between the two organizations and a real desire to understand each other's problems. Continuation of this relationship will bring about proper adjustment of minor details which are troublesome both to the physicians of the state and to the Industrial Commission.

The Committee on Public Relations and Economics during the past year has, on several occasions, met with the State Director of Health, and I assure you there has been developed mutual appreciation of the fact that the interests of the State Department of Health and the State Association are identical. We have given assistance to, and have received help from, that Department and we look forward to a continuance of that spirit of cooperation which is in the best interests of all concerned.

PROBLEMS OF THE SICK POOR

The problem of medical care to the needy has for the past two or three years been a real and important item in the work of the Committee on

Public Relations and Economics. The problem consists of two parts: first, medical care to the definitely indigent; and second, medical care to those of limited income. The first phase has been handled by the Committee on Poor Relief which, during the past two years, has done a magnificent piece of work. I insist that each and every one of you read every word of that Committee's report, for it clearly defines the present situation in so far as medical relief is concerned and can be used as a guide by each county society in handling that problem in its own county. While the situation despite the efforts of this Committee is not ideal, the Committee is making progress and we feel that in the future it will be able to report more constructive accomplishments.

This year the Committee on Public Relations and Economics was instructed by Council to continue the work initiated by the Coordinating Committee, under the presidency of Dr. Hein last year. A special Committee was organized to act as a fact-finding body, continue the studies of the Coordinating Committee, and to be prepared to act in an advisory capacity to The Council on various phases of the problem involved in medical service plans, primarily designed for the limited income group.

MEDICAL SERVICE PLANS

The study of medical service plans has been a continuous activity during the past two years under the direction of the former Coordinating Committee and the present Committee on Medical Service Plans. Certain recommendations growing out of these studies will be presented to the House of Delegates at this meeting.

One of the most important things the Committee on Public Relations was called upon to do during the past year was that of playing an important role in the campaign which resulted in the defeat of the proposed Bigelow Amendments to the Ohio Constitution. We assumed our full responsibility in that campaign and are proud of it.

At our 1939 Annual Meeting, the House of Delegates authorized the establishment in our central office of a Bureau of Public Education, and increased the annual dues of the Association to cover the necessary expenses involved in the establishment of this Bureau. This action was based upon a recommendation of the Coordinating Committee previously referred to. That Bureau has been organized as a part of the work of the Committee on Public Relations and Economics and is a new venture for organized medicine in Ohio.

WORK OF NEW BUREAU

Most noteworthy among its early efforts has been the inauguration of a state-wide press relations program. It has provided the newspapers of the state with regular stories on topics

of general interest in the fields of health education and medical economics. Not only have Ohio's newspaper readers been given authoritative health information of educational value, but they have seen clear, understandable statements of the profession's point of view on contemporary social and political issues affecting medicine. Excluding the advance material mailed to Ohio's editors concerning this 1940 Annual Meeting, the Bureau has distributed a total of 6,346 releases on 24 different topics. The response of the newspapers has been notably good, bearing out our original supposition that editors want, and will print, bona fide medical news so long as it is not tainted with ill-concealed publicity. Approximately 350 newspapers, dailies, and weeklies, in Ohio have printed one or more stories originating from the Bureau. The combined circulation of these papers is more than the population of the state.

The Bureau of Public Education has been busy also in other fields. It has compiled a speakers' list from which various lay organizations may obtain physicians to talk at state and district meetings. It has built up a subject file of literature on 60 topics of popular interest, and it lends material from these files to both laymen and physicians to aid them in preparing lectures, papers, discussions, etc. It has collaborated with physicians scheduled to appear on radio programs and has taken other steps to promote medical broadcasts in Ohio. It staged an exhibit at the Ohio State Fair last year, which was visited by more than 200,000 persons. It has distributed posters and pamphlets urging preservation of the American standards of medical practice.

PROPER PROCEDURE ADOPTED

This first year of our organized effort in public education in a big way has been a pioneering period. The Bureau has proceeded cautiously in a field which was virtually unexplored—in Ohio, at any rate. Its groundwork has been solidly laid. The results it has achieved, as well as its promises of future results, bear eloquent witness to the assertion that a program of public information for the medical profession must be carried on by the profession itself, through its own organizations. No other method would approach the same objectives as surely and effectively as that we have decided upon in Ohio. By creating our own agency for reaching the public, instead of hiring services of an outside organization, we are constantly in a position to guide it, aid it, and work with it. It is, as it should be, an integral part of medical organization.

During the past year the Committee on Education has completed the second year's course of regional postgraduate lectures. As a result of the experiences gained the first year the Com-

mittee was able definitely to increase the educational value of the 1939 course.

Certain changes and plans have been decided upon for this year's course, details of which you will find embodied in the published report of the activities of the Committee.

EXCELLENT EDUCATIONAL PROGRAM

Under the direction of this parent committee, there was organized in 1936 a Speakers' Bureau which has become a valuable source of supply for scientific guest speakers before county medical societies. We are proud of the manner in which the Committee on Education is keeping the members of the Association informed of the scientific advances that are being made in medicine. Its activities during this past year have been of definite progress in the extension of the educational activities of the State Association. The committee's plans for the future guarantee still greater progress. I would be ungrateful at this point if I did not state that the Association owes a unanimous vote of appreciation to Dr. Cummer, chairman of that Committee for the past three years, who has given so much time and energy to the splendid work of the Committee and has been the spark plug of its activities.

The great changes and the marked improvement in your *Ohio State Medical Journal* during the past two or three years have been continued during this past year. At the present time we have one of the best, if not the best, of all state journals. We are fortunate in having at its helm, Dr. Forman, a hard-working editor with great vision, and a business management that is efficient and economical.

Acting under instructions of the House of Delegates at our last Annual Meeting, The Council has proceeded with preliminary steps for the formation of a Woman's Auxiliary. Such an organization is being completed during this Annual Meeting.

GAIN IN MEMBERSHIP

I am happy to report that in spite of the increase of dues we had on May 1, a total of 6,103 members, compared with 5,979 on May 1, 1939. The steady growth your Association has experienced during the past few years is continuing.

I believe that today the members of this Association are more keenly interested in their county societies and in their State Association than they have been at any time in the past, but there is still room for great improvement. You as individual members of your society, especially you who are officers of county societies, must continuously strive to make your organization assume its proper place in the life of your community and in the activities of your State Association.

As stated previously, I feel obligated to convey to you impressions formed as the result of

the small part I may have played in the affairs of your State Association during the past few years, particularly the one just closing. In doing so, I hope that the following remarks will be received in the spirit in which they are given.

As I intimated a few moments ago, I have been impressed by the fact that although a large percentage of the members are familiar with the medical problems arising as the result of rapidly changing economic conditions, with legislative questions, and other matters of real importance, there still are too many who are not assuming their full responsibility as members of this Association or as officers of our county societies, in that they are not keeping themselves informed on these matters or refuse to take a part in efforts to meet them.

ALL MUST TAKE AN INTEREST

This is a situation that can easily be remedied if those of you who are not assuming your full responsibility would make a real effort to read every word of the minutes and the proceedings of your State Council and of the various committees working under it. These are made a matter of public record by publication in your state medical journal and thus are easily available to you. The officers of our county societies are furnished with special bulletins on important subjects, and the information they contain should be made immediately available to all members. If this is not being done in your society you should determine who is not assuming the full responsibility of the office to which you have elected him.

Many problems confront us as a profession. Possibly they are greater today than they have been in the past. We can solve them, just as we have in the past, if we act as a unit and if your state officers and committees have the active support of a well-informed membership. We each have an individual responsibility to keep ourselves informed in order that we may speak on these matters in an intelligent manner to those of the laity with whom we come in contact. This is a solemn obligation to you as members, and to you as officers of county societies.

NEW PROBLEMS APPROACHING

There will be great need for real cooperation upon the part of each and everyone of you during the coming year, for you must remember that it will be a general legislative year. There will, undoubtedly, be bills introduced into our State Legislature which will be inimical to the best interests of public health, and, of course, there will be certain measures whose intrinsic worth will warrant support of your State Association. Through the officers of your society and your legislative committee you will be furnished pertinent data on all of these measures and you must familiarize yourself with that data.

Your legislative committee should be one of the most active committees of your society. If it is not, you should correct the situation. Through such a committee you will be asked to help carry out the legislative policies of the Ohio State Medical Association. If during the coming year such a message does not come to you through your legislative committeemen, find out why. At the same time when they ask your assistance, give it willingly and intelligently.

During the past few years the profession of the entire country has been justly fearful of the possible federalization of the practice of medicine and our health services. While those who have promoted this idea still are convinced of the correctness of their stand, their voice is not as powerful as it was a year ago.

I have the distinct impression that the program on federalized medical care will during the next few years assume less and less importance, but we must not lessen our vigilance or have a sense of false security.

I am personally very proud of what has been done during the past year by our new Bureau of Public Education, and I anticipate a great broadening of its activities. We now have a magnificent set-up under intelligent direction. A Bureau such as this working under the direction of your officers, and whose policies are determined by them, I am sure will react to the benefit of the entire profession and will be of material assistance to us in our role as guardians of the public health. I hope that during the next year this Bureau will be able to devise methods by which we may avail ourselves more frequently of that very important channel of public communication, the radio.

BETTER RELIEF PLANS NEEDED

By far the most important problem that we as a profession must consider is the problem of medical care to the needy. I believe that the trend of thinking today is in the direction of setting aside from tax-originated funds certain sums to provide medical care for the definitely indigent. The manner in which these funds will be distributed to physicians for the care given those definitely indigent is a problem that is being given real study. At the present time there are almost as many solutions as there are individuals studying the problem. I believe that in spite of this diversity of opinion all are guided by a desire to assure the indigent the best of medical care, for they know that by so-doing, and thus improving the health of these people, at least some of them will cease to be indigent. Under whatever plan is set up, the guidance of the local medical profession must be a dominant thing, for the combined medical knowledge of the physicians of a community is of far greater

value than that of any single individual or group of individuals of a community.

We may class as needy those of our population whose income is limited, for although they may not be in actual need of necessary material things, numerous studies and surveys have shown that they really are in need of an easier access to the already adequate medical care which their community offers. If this is true, and I am firm in my conviction that it is, it is the solemn obligation of our profession to find ways and means of giving to this group of people the health protection that we are now able to offer. In many communities the local medical profession is giving serious thought to this matter, and is setting up various types of voluntary prepayment medical service plans. I admit idealism when I say that the only principle which will insure the success of any type of medical service plan is a belief that by so-doing we are in a position to practice better medicine by providing an easier way for people to see us more frequently and certainly earlier in the course of their illness, thus increasing our opportunities of practicing preventive medicine.

MUST PRESERVE STANDARDS

When, and if, such plans are put into effect in Ohio I believe that this should be the guiding principle of each and every one of us. Although we in Ohio have studied this problem of medical service plans for several years, we are possibly not quite as far along as several states, for we have proceeded with caution and we hope that should plans be put into effect in Ohio, they will permanently insure subscribers of those plans a complete medical service truly representative of the highest quality of service their community affords. This, of course, can be done only if the profession of that community is heartily in accord with the basic principle involved.

During the past few years there has been a steady increase in the amount of work required of our State Headquarters Office at Columbus and in the responsibilities of its staff. This has been particularly true during the past year and certainly will be true during the ensuing year. I feel that our Association is to be congratulated on having a most efficient central office. Those of you who have taken advantage of the services it makes available to all members and who have had an opportunity to witness its work at close range will, I am sure, support this statement. Our Executive Secretary and his associates in the Columbus office are truly loyal to us and to our ideals. They constantly give unselfishly of their time to the activities of the Association and discharge their duties with real efficiency. We owe them a debt of gratitude and in closing I should like on behalf of the State Association to ex-

press to them sincere appreciation for what they have done, and are doing, for us. My vocabulary is not sufficient to adequately express my own feelings toward them and to thank them for the great help they have given me as Councilor and as President.

In bringing this year to a close, I wish to thank the Association for the honor which has been mine in being your chief administrative officer. It has been a most stimulating and gratifying experience—one which will never be forgotten.

City of Toledo and Wayne, Lorain Counties Win Health Awards

Several Ohio communities received awards of merit in the 1939 City and Health conservation contest conducted by the Chamber of Commerce of the United States in cooperation with the American Public Health Association, for the purpose of furthering adequate health protection and health promotion services throughout the United States.

Toledo received an award of merit in Group II (cities of 250,000 to 500,000 population), in the City Health Contest and a similar award went to Wayne County and Lorain County in the North-eastern Division in the Rural Health Contest.

The competent manner in which a community is meeting its health problems is the basis upon which the awards are made. This does not necessarily mean that awards are made to the healthiest communities. A community which enters the contest is graded on what measures it takes: to promote effective cooperation with its physicians and dentists in furnishing necessary services to all those who need them; to provide and safeguard its water supply; to furnish adequate and safe sewerage disposal; to reduce infant and maternal deaths; to combat tuberculosis and syphilis; to protect its citizens against other communicable diseases; to insure healthy children; to protect and safeguard its milk and other foods; to enlarge and improve its lay-understanding of ways and means of preventing sickness and death and of maintaining good health.

New Officers of Northern Tri-State

Dr. Burt Hibbard, Lima, was elected president of the Northern Tri-State Medical Association at its 67th annual meeting, April 9, at Battle Creek, Mich. Others elected were: Dr. Lyman T. Rawles, Ft. Wayne, Ind., vice-president; Dr. E. B. Gillette, Toledo, secretary, and Dr. Douglas Donald, Detroit, treasurer. The following were named counsellors: Dr. O. F. Klotz, Findlay; Dr. H. C. Weisenbarger, Lima; Dr. H. E. Randall, Flint, Mich.; Dr. Wilferd Houghney, Battle Creek, Mich.; Dr. F. C. Carter, South Bend, Ind.; and Dr. G. O. Larson, LaPorte, Ind. The next meeting will be held in Tiffin, in April, 1941.

Medical Aid for the Needy Is Discussed by Senator Taft, Guest Speaker at Banquet at 94th Annual Meeting

BETWEEN 350 and 400 members and guests of the Ohio State Medical Association attended the Annual Banquet on the evening of May 16 during the 94th Annual Meeting of the Ohio State Medical Association at the Netherland Plaza Hotel, Cincinnati.

The guest speaker was United States Senator Robert A. Taft of Ohio, who spoke on the subject, "Medical Aid for the Needy". The address was broadcast over a national C.B.S. hookup and locally by Station WSAI, Cincinnati.

In introducing Senator Taft, Dr. Parke G. Smith, Cincinnati, the retiring president of the State Association, said:

"We are highly honored on this occasion—the Annual Banquet of the 94th Annual Meeting of our Association—to have as our guest speaker, United States Senator Robert A. Taft.

"At our invitation, Senator Taft has come home to Ohio to talk to the medical profession of his native state about the problems of providing medical care for the needy. He is especially qualified to discuss this topic. For, as you know, Robert A. Taft, the citizen of Cincinnati, has always been vitally interested in the health activities of our community.

"And now, as United States Senator, he is serving on committees charged with the responsibility of studying health problems of national scope.

"On behalf of the Ohio State Medical Association, it is now my privilege officially to welcome Senator Taft to our meeting and to present him at this time to you—my fellow members and our guests."

The complete text of Senator Taft's address follows:

Members of the Medical Profession of Ohio:

I appreciate greatly the honor of addressing the Ohio State Medical Association, which for so many years has upheld the standards of the medical profession in this state. It is a pleasure to address you in Cincinnati. You have most conveniently arranged to hold your annual meeting here, and given me an opportunity to spend at least one day in my home city. Between sessions of the Senate and occasional trips to all parts of the United States, I don't get much chance to see anything of my home town. I am sure that Mayor Stewart and the rest of my fellow Cincinnatians have given you a warm greeting to the most hospitable city in the United States.

The world is shocked today at the outrageous

aggression of Hitler in Europe; at the frightful suffering and destruction brought on innocent and courageous peoples by acts contrary to every principle of justice and humanity and mercy. Compared to the terrible havoc of modern war, our own troubles are easier to bear. But we must not let our concern with what is going on in Europe check the efforts to improve the condition of our own people here. We must show to the world what a democracy at peace can do for its own people, and hold aloft in a distressed world the picture of a goal to which all may return.

The worst cases of hardship which we have to deal with are those produced by sickness, and particularly where sickness is aggravated by poverty. Nothing arouses our interest and sympathy so much as movements of all kinds to prevent and relieve the suffering produced by illness. It is all the more essential that the measures which we take be carefully thought out; that they be based on sound principles and not on an emotion so easily aroused. I believe that government should do more to furnish medical aid to the needy than is now being done. But I also believe that unless it is properly planned, it in the long run may do more harm than good.

There is no question which concerns the medical profession more today than that of medical aid for the needy, and the extent to which government shall enter into the field. We have before us in Congress today the Wagner Health Bill and many other proposals to spend government money in connection with health activities. Great emphasis has been laid on assertions that health care in America is inadequate. There have been signs of an organized propaganda to socialize the whole field of medicine.

NO NEW PRINCIPLE

There is no new principle involved in the extension by the government of medical aid to the needy. Every State in the Union has considered that field as a proper one for government activity. Public health work, particularly in the prevention of communicable disease, has been undertaken without question or doubt. In the field of hospitalization, nearly all the states and many cities have provided free general hospitals, and other hospitals for the mentally ill, the tubercular, the epileptics, and other special groups. In connection with general hospitals, the local governments have long provided free medical care in greater or less degree. The larger field of providing medical care to the needy in their homes has been more difficult to deal with, and has not been undertaken to any great extent.

Of course, free medical aid to the needy has also been the function of private charities and private hospitals. Even more has free aid to the poor been given in tremendous volume by the medical profession itself, the financial value of which is impossible to estimate. All of us have known the typical American family doctor, ready to go to any call at any time of day or night, by horse and buggy, by Ford car. He refuses no service because the patient cannot pay for it. He forgets to send his bills, or he

makes no effort to collect them. The nation cannot repay, and is not asked to tax itself to repay, the services which have been so generously donated by thousands of doctors.

CHARGES HARD TO BELIEVE

It is probably true that health work has not been very systematically organized to reach every possible citizen. It has been to some extent a patchwork of public and private charity, but it is also true that the field has been well covered in most parts of the United States. Few persons who are really sick have been unable to obtain proper medical care. It is hard to believe the general conclusions of the Interdepartmental Committee when we find that the health of the nation has never been as good as it is now. This Interdepartmental Committee to Coordinate Health and Welfare Activities of the federal government was a typical New Deal setup, created to justify and publicize a preconceived plan for extending federal control over the whole problem of health. Its reports exaggerate the need, and try to present a picture of neglect and medical inefficiency, which is very far indeed from the truth.

As a matter of fact, the accomplishments of medicine in the United States in the past fifty years have been extraordinary, and have not been exceeded in any other country in the world. The average expectancy of life has been lengthened by twelve years between 1900 and 1937. The death rate has fallen to 11.2, which compares favorably with any of the large nations of the world, and there is still a steady improvement. There are more doctors per population and more hospital beds per population than in any other country. Undoubtedly there is plenty of room for improvement. I venture to think, however, that the difficulty is a social difficulty, and arises much more from the inadequacy of the income of millions of families than it does from any faults in the medical profession or lack of medical facilities.

I have pointed out that there is nothing revolutionary in the proposal that the government provide medical care for the needy. In the same way we have long recognized that government must provide poor relief, and must see that none of its citizens go without adequate food or clothing because of inadequate income. Every state has laws which provide for such relief by cities or counties. Many states, even before 1933, adopted old age pension systems. It has always been recognized, however, that wholesale public aid to large groups of citizens contains certain dangers which must be dealt with. It is easy for people to develop an attitude of mind in which they do not make a sufficient effort on their own account. Such an attitude is demoralizing to the recipients of aid, and if the principle is expanded in practice until it becomes a dole to great masses of the population, without adequate safeguards, it may well demoralize an entire nation.

CARE AND ECONOMY NECESSARY

The need for medical aid is more difficult to judge than the need for food and clothing. Therefore, without care, a medical dole may become even more demoralizing. The expense is also very considerable, and unless restrained will become a tremendous tax burden. The proper and natural sympathy for the unfortunate leads to a steady increase in cost once the work is

undertaken. This has been true in relief, and is likely to be true in the medical field.

In short, the program must be undertaken with care and with economy. After all, the only people who can pay for this aid to the needy are those who are working at or about the same time. With the tremendous scale of government expenditures in all fields today, additional taxes cannot come from the wealthy alone, but must be spread over the entire population. The confiscation of all income over ten thousand dollars a year would not pay our present tax bill for six months in any year. The average workman today pays 15 per cent of his income in taxes. We cannot make the tax burden so great as to discourage him from the very enterprise which must pay these taxes. And yet the average workman, as well as those of our people better off than the average, are and should be willing to contribute the small additional percentage necessary to help those unfortunate families whose suffering otherwise may be insupportable.

There has always been free medical care to the needy, and it should be more systematically organized, and government should spend more money on it than is spent today. But should that money be spent by the state, local or federal government? What principles should govern the increased government aid?

HEALTH INSURANCE

There is one substantial difference between relief and medical aid. Many families are perfectly able to pay their ordinary expenses, and should be able to pay for medical care, and yet when they run up against an emergency of sickness they have no reserves with which to meet it. Such families should not have to be supported by taxes paid by other families less able to bear the burden than the family which is assisted.

In order to avoid the necessity of extending free medical aid to many more families than actually require it, it is desirable to develop some form of health insurance. Families of intermediate income ought to be able to put aside a weekly amount which will insure them adequate medical aid in any emergency. All kinds of experiments have been made, and there is not much doubt that we will develop satisfactory voluntary plans, though I claim to be no expert on the subject. Men have shown their willingness to pay premiums for life insurance. If they are willing to set aside money to pay the undertaker, they ought to be willing to set aside money to pay the doctor.

But compulsory health insurance is another thing. Deductions from payroll or otherwise to support compulsory health insurance really destroy the whole character of the plan as insurance. Such payments are in fact taxes, and they are shortly absorbed in costs and passed on as taxes to all the people. The assistance which is received comes finally from a government bureau. Look at the payroll taxes we already have for unemployment insurance, so heavy and complicated in administration as to hamper and restrict the development of private industry and increase unemployment. Health insurance should certainly be developed on a voluntary basis.

Furthermore, it should provide for the right of the insured to select his own physician, if his physician is willing to enter into the general plan. There should be no government doctors

on a fixed salary, taking care of as many cases as the government chooses to assign to them.

SOCIALIZATION OF MEDICINE

The socialization of the medical profession is a danger which must and can be avoided in any extension of medical aid to the needy. If that aid is confined to the needy, the danger is not so great, but even then methods can certainly be developed to give the man entitled to government aid the right to choose his own doctor and have him paid by the government. We have such a plan for workmen's accident insurance in Ohio.

But if the government undertakes to cover the whole field, and extend aid not only to the needy, but also to those quite able to pay for it, there is real danger. Compulsory health insurance for all employees, similar to unemployment insurance, would gradually result in a large proportion of the total payments to doctors coming out of the government fund. In effect, the bulk of the medical profession would be employed by the government. That is socialization of medicine. We might try to guard against it by provisions allowing the patient to choose his own doctor, but it is not likely that we could long maintain such a restriction. Once a profession is paid with government money for the bulk of all its work, it takes its orders from the government. Gradually most doctors would come to be in effect government employees. Nothing like that has ever happened to a profession in this country. The American system has been built on independent business men, on independent farmers, and on independent professional men, particularly lawyers, doctors, scientists and professors. Much of the independent thought has originated with professional men. They are largely responsible for the great creative accomplishments of the last century which have so tremendously increased the living standards and happiness of the people. In surgery, in preventive medicine, in methods of treatment, in bacteriology, the steady growth of new ideas has come from an independent profession. In spite of unfortunate exceptions, the average professional man does his own thinking, and is less subject to the influences of power and propaganda than any other group of the people. In a socialized world, not only does the government regulate all prices, wages, hours and practices, but it employs all the doctors, lawyers and scientists. The world becomes a great bureaucracy, and a progressive democracy dies through hardening of its arteries.

I have said that our difficulties today are rather social than they are medical. It is essential that we confine our free medical care to those who are really needy; that we treat the problem as a relief problem, and work out the difficulties of the intermediate income groups through plans of voluntary cooperation.

PLACE OF THE FEDERAL GOVERNMENT

The specific proposals under discussion today relate to the activities of the federal government in the field of health and in its attempt to improve general social conditions of the country. From a health standpoint alone, there is little justification for the federal government concerning itself in a field which has always been recognized as one for local government. But during the past ten years we have come to realize that the resources of the local governments to deal with relief and other aid to the needy are inadequate, and that federal financial aid is absolutely essential. The depression of 1929 created a great unemployment problem which has never been solved.

We thought that in America any man who was willing to work could get a job and support his family—even take care of his old age. But we found we had not achieved that millennium. We found, furthermore, that the cost of proper care for the needy was so great that it could not be provided by the states and local governments. They had limited powers of taxation. They could not tax the wealthy without the wealthy moving to other states. They could not tax local industry without discouraging its development in that locality. Most of the state tax systems were heavily burdened to provide for the normal activities of cities, school districts, counties and states.

And so the federal government was called upon to give financial aid to activities which under our Constitution have always been regarded as of state or local concern. In the field of relief the federal government, as a condition of financial assistance, and I think, very wrongly, insisted on taking over most of the administration, instead of assisting the states to do the task which was really theirs. The federal government has undertaken to assist in ordinary relief, in old age pensions, unemployment insurance, and housing. Its assistance has been sought and given simply because the states have not been able to raise the money to handle the social distress of many million families.

I believe that the federal government should also aid to some extent in the field of medical care for the needy, and for the same reason. That field has not been largely developed by the states, and in most cases the financial provision has been inadequate. Historically the bulk of local and state tax funds were allotted to the schools, the roads, and other activities of more immediate local demand than relief. On the other hand, we should certainly recognize that many states do provide a large measure of medical aid, and have always done so and provided the funds for it. The states which have not provided any funds should do so before leaning on the federal government. Federal aid should be merely auxiliary—even more so than in the field of relief, old age pensions, and unemployment insurance, in which fields the states had made almost no provision in their tax systems. Each state should be encouraged to work out its own problems in its own way, the federal government merely providing funds to supplement state funds and encourage an orderly and comprehensive plan.

But the dangers of extending free medical aid in the wrong way are intensified when the federal government enters the field. At least under the present administration, there is not the slightest conception of the necessity for economy. They don't seem to realize that sooner or later the whole people, rich and poor alike, have to pay for what they spend. What is the validity of the argument that the federal government can afford to pay when the states cannot, so long as the federal government is four billion dollars a year in the red? Why complain of the inadequacy of state tax systems when no one has the nerve to devise a federal tax system to pay the federal bill? Furthermore, if all health control is centered in Washington, the whole nation may be suddenly subjected to experiments proposed by any group of cranks who may obtain the ear of the executive or Congress. Socialized medicine is only one of the changes which might be effected overnight because someone knows where to apply pressure at the right spot. Even greater care is necessary in ex-

tending federal aid to health than in the case of local and state government.

A DANGEROUS PROPOSAL

The Wagner Bill, in particular, seems to me an extraordinarily dangerous way of dealing with the whole subject. It is true that it purports to be a mere assistance to states which set up the proper plan. But, in the first place, it is immensely complicated. It provides aid in six different categories—two categories of maternal, infant and child health under the Children's Bureau; two, of public health work and hospitals, under the Surgeon General; and two, of general medical care and health insurance, under the Social Security Board. Each state is required to set up six elaborate advisory committees, and deal with three different departments and six different bureaus of the federal government.

The bill is typical of New Deal technique. Whenever an abuse occurs or a need arises in any field, the only solution which the New Dealer offers is a complete regulation and supervision of every detail of that field by the federal government. In the Securities and Exchange Commission, in the National Labor Relations Board, in the Wage-Hour Administration, we see great bureaucratic machines set up, on the theory that you must remedy every evil by giving a government bureau discretion to pass on every act in advance. Bureaus are created and given power to issue regulations increasing their own power. Instead of the law prohibiting certain definite actions which have produced bad results, and giving the federal bureau power to enforce, the law gives the bureau arbitrary and discretionary power to tell the industry concerned just how it must run every detail of its business.

So also in this health field. Instead of picking out a particular problem, and attempting to relieve that problem with some federal financial assistance and a suggestion to the states as to how with that assistance they can eliminate a serious evil, the Wagner Health Bill proposes to blanket the whole field with an expenditure of 275 million dollars a year, increasing gradually to 800 million dollars a year. It encourages compulsory health insurance. It provides the funds with which the state, otherwise unable to do so, may socialize the entire medical profession.

In my opinion, each step taken by the federal government should be taken with care and to meet a demonstrated need. There should be an effort first to encourage the states to develop sound methods of medical aid to the needy, and the demand for federal assistance should come from the states instead of that assistance being forced upon them.

NEW HOSPITAL BUILDING PLAN

Our Senate Committee on Education and Labor has just recommended one step which I think is sound, which illustrates the manner in which the federal government should proceed. We are proposing to lay aside the Wagner Health Bill for the present and to appropriate ten million dollars a year for several years to assist the states to build small hospitals in rural sections where those hospitals do not exist. The amount involved is not sufficient to permit any considerable development except where it is very badly needed. The appropriation, one-tenth of that proposed in the Wagner Health Bill, for

hospitals should have an equal effect in encouraging states to survey their entire hospital situation and to work out a comprehensive plan. The money provided is not sufficient to encourage any competition with existing private facilities. The Wagner Health Bill apparently contemplated a State Plan in each state, entirely disregarding the extensive hospital facilities which ought to be considered in working out any plan of hospital aid for the needy. It is rather interesting that the original little hospital bill proposed by the President contemplated the construction of a chain of federally-owned hospitals with W.P.A. labor. As finally worked out somewhat at my suggestion, all the hospitals built are to be transferred to the state, and operated as part of a state or local system. The construction is to be made by contract in the usual way, and some aid is to be given towards maintenance during the first five years. It is an experiment, but it should meet the hospital problem to the extent, and in the places, where the need really exists.

In the same manner in which the hospital problem has been met, I believe that Congress should consider as soon as possible the appropriation of federal money to assist in the development of direct medical aid for the needy. I would like to see specified in the bill the kind of aid which the state and local government shall give. I would like to see the assistance so restricted that the funds could not be used towards the general socialization of the medical profession. In my opinion, we owe a duty to the unfortunate members of society who, without fault of their own, or even perhaps with fault of their own, are unable to provide a decent living for their families. We owe the children of such families an equal opportunity to make a success of their own lives. They cannot do so in a family overwhelmed by poverty and illness. No system will work to relieve all hardship. No system will be 100 per cent perfect. But I believe that at a reasonable cost the federal government can stimulate interest and assist the development of plans that will reduce the hardships of many unfortunate families. In a federal budget of seven billion dollars, the ultimate expenditure of several hundred million dollars a year to supplement the work of states, of local communities, and of private charity, does not seem to me an unreasonable sum in comparison with the tremendous good which it can do.

The medical profession in the last hundred years, increasingly in the last generation, has worked miracles. Preventive medicine has checked and destroyed epidemics, and lengthened the span of years. Surgery saves thousands of lives annually. The lives of mothers and infants are more secure. Now we are concerned that society shall be able to share these boons with all.

But let's do it in the right way. Let's not do it at the cost of the independence of the medical profession, which has given so unselfishly of its time and talents. Let's not do it in a way which will only give the needy the kind of treatment a poor citizen gets from a government bureaucrat in Washington. No human suffering should go unheeded. But let us see to it that self-reliant Americans retain their freedom to cooperate voluntarily in health insurance plans if they want to, and their liberty of choice in the matter of the family doctor. We want an America free as well as healthy. There is no necessary contradiction.

The President-Elect

BY electing Dr. Harry V. Paryzek, Shaker Heights, as President-Elect of the Ohio State Medical Association, the House of Delegates at the 94th Annual Meeting of the Association in Cincinnati, May 14-16, conferred the highest honor possessed by the Association on one of Ohio's most distinguished internists and a physician well qualified through training and experience to meet the responsibilities which confront the leader of the medical profession of Ohio.

Dr. Paryzek succeeds Dr. William M. Skipp, Youngstown, who was installed as President of the Association at the final session of the House of Delegates by Dr. Parke G. Smith, Cincinnati, the retiring President.

Born in Cleveland on January 11, 1892, Dr. Paryzek attended John Carroll University, graduating in 1911 with an A.B. degree. He immediately entered the School of Medicine, Western Reserve University, where he received his Doctor of Medicine degree in 1915.

Following internship and residency at Lakeside Hospital, Cleveland, Dr. Paryzek entered the military service in 1917, serving overseas for a period of two years as a captain in War Base Hospital Unit, No. 4 (Lakeside Unit) and Mobile Hospital Unit, No. 5.

Returning to Cleveland after the first world war, Dr. Paryzek began the active practice of medicine, initiating a brilliant medical career and one which has won for him many honors. Director of Medicine at St. Alexis Hospital, Cleveland, Dr. Paryzek is a fellow of the American Medical Association, fellow of the American College of Physicians, diplomate of the American Board of Internal Medicine and member of the board of trustees of the Cleveland Medical Library Association.

Soon after he entered the practice of medicine, Dr. Paryzek affiliated with the Cleveland Academy of Medicine, the Ohio State Medical Association and the American Medical Association. His associates in the Cleveland Academy were quick to recognize his ability as a leader and his broad knowledge of many of the social and economic questions relating to the practice of medicine. He was elected to the Board of Directors of the Academy in 1924, serving with distinction until 1938—a period during which innumerable vital problems confronted the medical profession of Cleveland and the state and nation. In 1933, Dr. Paryzek served as president of the Academy.

Dr. Paryzek received additional recognition for his unselfish and outstanding services on behalf of the medical profession in 1932 when he was elected a member of The Council of the Ohio State Medical Association. Prior to that time he had held the offices of chairman and secretary of the Medical Section of the State Association. After serving two years as a member of The Council, Dr. Paryzek declined re-election because of an acute illness. However, in the Fall of 1937 upon the death of Dr. A. A. Jenkins, Cleveland, Councilor of the Fifth District, Dr. Paryzek was drafted for service on The Council, serving until the Spring of 1938. Later in 1938 he again responded to the call of the Association for an important assignment, by accepting appointment to the special Coordinating Committee authorized by The Council which engaged in a comprehensive study of the distribution of medical services in Ohio and submitted recommendations as to how to make medical care more readily available to all citizens of the state, especially those of low-income.

Dr. Paryzek, his wife and three children reside at 3299 Braemar Road, Shaker Heights.

Election of Dr. Paryzek—a gentleman, a scholar, an outstanding physician and proven leader in medical organization—insures the continuance of sound and aggressive leadership for the Ohio State Medical Association upon the completion of the presidency of Dr. Skipp at the 1941 Annual Meeting.

Official Proceedings of the House of Delegates, Ohio State Medical Association, 94th Annual Meeting, Cincinnati, May 14-16, 1940

MINUTES OF FIRST SESSION

THE first session of the House of Delegates officially opened the 94th Annual Meeting of the Ohio State Medical Association, Netherland Plaza Hotel, Cincinnati, at 1:00 P.M., Tuesday, May 14, 1940.

Delegates of the State Association were officially welcomed by Mayor James Stewart of the City of Cincinnati and E. O. Swartz, president of the Cincinnati Academy of Medicine. Dr. Swartz, presiding as temporary chairman, called the meeting to order; paid high tribute to Parke G. Smith, Cincinnati, the President of the State Association; and then presented Dr. Smith who addressed the delegates, giving a review of the activities of the Association during his tenure of office. (Complete text of Dr. Smith's address will be found on pages 639-643).

As the first order of business, Dr. Smith called for a report of the Committee on Credentials of Delegates. Henry B. Freiberg, Cincinnati, presented the report of that committee, stating that the credentials of delegates had been examined and that the roll call as prepared by the Executive Secretary had been confirmed.

The roll call was answered by 103 delegates and officers. (See official roll call appended.)

On motion by Henry B. Freiberg, Cincinnati, seconded by L. Howard Schriver, Cincinnati, and carried, the minutes of the House of Delegates sessions held during the 93rd Annual Meeting in Toledo, May 3 and 4, 1939, were approved as published on pages 638-647 of the June, 1939, issue of *The Ohio State Medical Journal*.

REFERENCE COMMITTEES

The following reference committees to handle various matters coming before the House of Delegates were appointed by President Smith:

Presidential Address—Robt. T. Allison, Jr., Akron, chairman; A. W. Carley, Dayton; John S. Hattery, Mansfield; D. J. Slosser, Defiance; Emil R. Swepston, Cincinnati; O. P. Tatman, Chillicothe.

Resolutions—G. A. Woodhouse, Pleasant Hill, chairman; Dow Allard, Portsmouth; A. A. Brindley, Toledo; B. R. Goldsberry, Athens; Robert Conard, Wilmington; George T. Harding, Columbus; R. R. Hendershott, Tiffin; Carl A. Lincke, Carrollton; M. D. Shilling, Ashland; Walter K. Stewart, Youngstown; Ralph M. Watkins, Cleveland.

Annual Reports—Paul H. Beaver, Leetonia, chairman; J. R. Echelbarger, Ottawa; Geo. G.

Hunter, Ironton; H. C. Messenger, Xenia; Frank M. Wiseley, Findlay.

Credentials of Delegates—Henry B. Freiberg, Cincinnati, chairman; George A. Gressle, Newark; I. B. Harris, Columbus; D. C. Houser, Urbana; E. F. Kieger, Cleveland.

Tellers and Judges of Election—Dean A. Nesbit, Youngstown, chairman; Chas. T. Atkinson, Middletown; John A. Carter, Batavia; H. T. Pease, Wadsworth; E. G. Rex, McConnelsville.

Time and Place of 1941 Annual Meeting—John M. Van Dyke, Canton, chairman; F. C. Anderson, Mt. Vernon; T. H. Brown, Toledo; J. W. Calhoun, Uhrichsville; Roy M. Meredith, Marietta.

CONSTITUTIONAL AMENDMENTS

At this point Dr. Smith requested the House of Delegates to consider two amendments to the Constitution and By-Laws of the State Association, which had been published in the March, 1940, issue of *The Journal* and copies of which had been distributed to the secretary of each component medical society. The Executive Secretary read the proposed amendments and, on motion by Guy E. Noble, St. Marys, seconded by Milton B. Cohen, Cleveland, and carried, the amendments reading as follows were adopted:

1. In Article 7, Sec. 4 of the Constitution strike out the "comma" at the end of the word "years" in line 5 and insert in lieu thereof a "period". Strike out the remainder of line 5, namely, "five to be", and the first part of line 6, namely, "elected each year"; inserting in lieu thereof the words "Councilors of the odd numbered districts shall be elected at annual meetings held in even numbered years." That portion of Article 7, Sec. 4 thus amended would then read as follows:

"The term of office of Councilors shall be for two years. Councilors of the odd numbered districts shall be elected at annual meetings held in even numbered years."

2. In Chapter 5, Sec. 1 of the By-Laws delete the words "ten delegates, one" in the fourth line and insert in lieu thereof the words "one delegate". That part of Section 1 would then read as follows:

"Committee on Nominations. On the first day of the annual meeting the House of Delegates shall elect a Committee on Nominations, consisting of one delegate from each councilor district."

ANNUAL REPORTS

Annual Reports of officers and committees, as published in the April, 1940, issue of *The Journal*, were presented to the House of Delegates by title

only and automatically referred to the Reference Committee on Annual Reports.

NOMINATING COMMITTEE

Proceeding to the next order of business, the House of Delegates elected the following Nominating Committee to present nominees for the various offices, with the exception of President-Elect, for action by the House of Delegates at its Second Session:

First District—Max M. Zininger, Cincinnati.
 Second District—A. W. Carley, Dayton.
 Third District—J. R. Tillotson, Lima.
 Fourth District—Frank E. Miller, Curtice.
 Fifth District—E. F. Kieger, Cleveland.
 Sixth District—Walter K. Stewart, Youngstown.
 Seventh District—S. J. Podlewski, Steubenville.
 Eighth District—M. S. Lawrence, Quaker City.
 Ninth District—Dow Allard, Portsmouth.
 Tenth District—John M. Thomas, Columbus.
 Eleventh District—John S. Hattery, Mansfield.

INTRODUCTION OF RESOLUTIONS

The following resolutions were introduced and referred, without debate, to the Reference Committee on Resolutions:

Resolution A. Introduced by Walter K. Stewart, Youngstown:

WHEREAS, The treatment and care of the mentally ill is essentially a medical problem involving not only the field of psychiatry, but also surgery, and medical treatment for physical ailments, with which it is inseparably connected, and

WHEREAS, The hospital facilities providing the necessary medical treatment is woefully inadequate and insufficient in Ohio, and

WHEREAS, The present State Hospitals for the mentally ill do not, and cannot afford the medical profession the opportunity of assisting in the performance of the above medical services, by reason of their limited number and location, and

WHEREAS, The law of Ohio makes it the duty of the State to provide

"Humane and medical treatment and care, preventive and curative, for mentally ill, insane, feeble-minded and epileptic persons," and "to promote the study of the causes of mental illness, insanity, feeble minds and epilepsy, with a view to the earliest possible cure and ultimate prevention; to protect the people of Ohio from the ultimate danger and unnecessary expense that results from placing in a penal institution insane and mentally defective persons who require for their own safety and the protection of society, present and future treatment or detention in a hospital for the mentally ill or insane; . . ." and

WHEREAS, This duty of the State of Ohio in reference to the mentally ill and insane can be performed by putting into execution General Code, Section 1890-16 which provides that

"The division (of mental diseases) may develop, extend and complete a statewide sys-

tem of psychopathic hospital service by establishing, constructing, purchasing, leasing or contracting for institutions known as out-patient hospitals as defined and provided for herein, in suitable districts, either separate from or in connection with existing or future state hospitals, which out-patient hospitals shall be used for the observation, care and treatment of the mentally ill, and especially for those whose condition is incipient, mild or of possible short duration. Such out-patient hospitals shall perform any of the work or duties authorized to or required of the division of mental diseases. . . ." and

WHEREAS, The intent, purpose and spirit of the above law can, from a medical standpoint, be carried out and put into effect with beneficial result and with an ultimate savings of lives and money, and

WHEREAS, Since the passage of the above law, no appropriations have been made by the legislature of Ohio to establish such needed institutions, now

THEREFORE, BE IT RESOLVED, That the Mahoning County Medical Society recommend to the Ohio State Medical Association that a proper committee be appointed to meet with the Division of Mental Diseases, and the Director of Public Welfare of Ohio, for the purpose of ascertaining and reporting to the Ohio State Medical Association the reasons that the psychopathic hospital service as provided in the General Code, Section 1890-16 has not been put into effect at any place within the State of Ohio.

Resolution B. Introduced by John M. Van Dyke, Canton:

WHEREAS, The latest available vital statistics show the relative low mortality and also incidence rate of infantile paralysis in comparison with other preventable or controllable diseases such as heart disease, cancer, pneumonia, venereal disease, tuberculosis and diabetes;

WHEREAS, Nation-wide crusades sponsored and directed by laymen have effectually mobilized public sympathy and vast monetary resources;

WHEREAS, Such crusades have been launched against diseases because of their news value and popular appeal rather than because of high incidence of mortality rates as in the case of infantile paralysis;

WHEREAS, Since nearly every state has justly and properly assumed the responsibility of care and control of crippled children;

WHEREAS, Definite and considerable advance has been made in the treatment of many more common diseases such as, pneumonia, venereal disease and diabetes for which no national appeal for funds has been made;

RESOLVED, That the Stark County Medical Society recommend to the Ohio State Medical Association House of Delegates that public appeal of national scope for contributions for specific health purposes be made only after approval by the American Medical Association.

RESOLVED, That the Ohio State Medical Association petition and urge the American Medical Association to assume leadership and formulate a nation-wide health program to

mobilize available public resources and to allocate and direct such resources rationally in accordance with statistical proof of greatest need.

RESOLVED, That the Ohio State Medical Association present the above resolution to the American Medical Association at its next meeting.

Resolution C. Introduced by John M. Van Dyke, Canton:

WHEREAS, The State of Ohio provides adequate treatment for diphtheria, rabies, tuberculosis, crippled children and syphilis;

WHEREAS, Improved methods in care of pneumonia and diabetes have markedly reduced death rate and prolonged life and health, while at the same time the cost of medical care in these diseases had markedly increased;

RESOLVED, That the Ohio State Medical Association use its best efforts to secure necessary legislation to provide approved sera and specific drugs for the treatment of such diseases among patients of the lower income group.

Resolution D. Introduced by Walter K. Stewart, Youngstown:

WHEREAS, Tuberculosis is a disease of prominent manifestations throughout the human body, and

WHEREAS, One affected with tuberculosis is liable to intercurrent and unrelated diseases, and

WHEREAS, Many of our tuberculosis hospitals are overcrowded and professionally unequipped to treat other than tuberculous lung affections, and

WHEREAS, It is unwise to expose non-tuberculosis patients to contacts in a tuberculosis institution,

THEREFORE, BE IT RESOLVED, That the Mahoning County Medical Society recommend that the House of Delegates of the Ohio State Medical Association go on record as favoring the policy of a rotating general visiting staff comprised of local, legally practicing physicians who have signified their willingness to serve and have been approved by the local medical society.

FURTHERMORE, That this staff be self governed, and

FURTHERMORE, That no unproven tuberculosis cases be hospitalized in any tuberculosis institution.

Resolution E. Introduced by E. O. Swartz, Cincinnati (on behalf of the Council of the Academy of Medicine of Cincinnati):

WHEREAS, It is claimed that there are many communities throughout the United States without a sufficient number of competent physicians, or totally lacking the services of physicians, and

WHEREAS, There is now an overconcentration of both general practitioners and specialists in many of the metropolitan areas throughout the country, and

WHEREAS, It would be desirable for this group of physicians to be afforded an oppor-

tunity to provide medical care in communities lacking a sufficient number of physicians,

THEREFORE, BE IT RESOLVED, That the delegates of the Academy of Medicine of Cincinnati be asked to present to the House of Dele-

HIGH SPOTS OF TRANSACTIONS OF THE HOUSE OF DELEGATES

Installed Dr. William M. Skipp, Youngstown, as President; elected Dr. Harry V. Paryzek, Cleveland, as President-Elect; re-elected five members of The Council; elected one new Councilor and one new delegate to the American Medical Association.

Selected Cleveland as the place for the 1941 Annual Meeting, such meeting to be solely a business session during the week of the 1941 A.M.A. session in Cleveland.

Commended the work of the various committees and the presidency of Dr. Parke G. Smith, Cincinnati, retiring president, through approval of reference committee reports.

Adopted corrective amendments to the Constitution and By-Laws and confirmed committee appointments of the new President.

Adopted resolutions on the following subjects:

Authorizing introduction of an enabling act to make possible organization of medical service plans by the medical profession;

Opposing introduction of legislation to reimburse physicians from highway funds for the care of indigents injured in motor vehicle accidents;

Requesting study by The Council as to why out-patient psychopathic hospitals are not being constructed as authorized by law;

Offering cooperation of the Association in efforts to make pneumonia and diabetes sera and drugs more readily available to the needy;

Recommending rotating staffs for tuberculosis hospitals where feasible;

Instructing Ohio's delegates to the A.M.A. to support a resolution asking limitation on services offered by government laboratories.

gates of the Ohio State Medical Association at its next meeting the urgency of this problem, and request, through the delegates of the Ohio State Medical Association to the American Medical Association, an investigation and report by the Council of Medical Education and

Hospitals, and the Bureau of Medical Economics, as to the extent of such medical need throughout the country, and the means whereby such physicians can be made available in the communities that need them.

Resolution F. Introduced by Robt. T. Allison, Jr., Akron:

WHEREAS, There is a growing tendency to create by legislation groups of specially privileged indigents;

WHEREAS, Funds made available to provide hospitalization and medical care for these specially privileged (or pre-empted) groups are being raised by taxation often coming from the local communities under the guise of state or relief funds;

WHEREAS, Payments from these funds for the medical care of such privileged (or pre-empted) groups as contrasted with non-payment for medical care of similar non-privileged groups has resulted (or will result) in the creation within the organized medical profession of specially favored groups of medical practitioners;

RESOLVED, That the House of Delegates of the Ohio State Medical Association, recognizing the varying ability of various communities or sub-divisions to provide funds for relief purposes, express its desire to cooperate with these communities in the handling of their relief problems;

RESOLVED, That the House of Delegates of the Ohio State Medical Association approve the findings of its special committee on poor relief as concerns the local responsibility of the various communities to provide funds for such medical relief;

RESOLVED, That the House of Delegates of the Ohio State Medical Association extend this report to provide that the distribution of such funds, in particular such portions of these funds as are used for the procurement of medical service in hospitals, shall be made without discrimination as to type of disease treated and that, where sufficient funds are not available for payment in full of usual fees for such services, all regular practitioners of medicine in this community be paid the same proportion of their regular fees;

RESOLVED, That the failure of a member of this society to cooperate in this program for medical relief be declared contrary to the best interests of this society and in violation of its code of ethics;

RESOLVED, Further, that a copy of these resolutions be transmitted to the Legislative Committee of this Society, to the Governor of the State, to the Director of Public Welfare and to the appropriate committee of the General Assembly.

Resolution G. Introduced by C. E. M. Finney, Springfield:

RESOLVED, That the House of Delegates of the Ohio State Medical Association approve the following resolution and instruct the Ohio delegates to the American Medical Association to support such a resolution if presented at the forthcoming New York Session of the American Medical Association;

WHEREAS, The continued growth and development of that special branch of medicine known as clinical pathology is necessary for the proper diagnosis and treatment of the sick and is essential to the science and practice of medicine; and

WHEREAS, The growth of laboratories of state boards of health has been abnormally augmented by grants-in-aid from the federal government; and

WHEREAS, The effect of these grants-in-aid is to extend these services to all citizens without regard to their ability to pay; and

WHEREAS, The excessive development of laboratory medicine by state boards of health serves as an entering wedge for state medical practice which apparently will include all medical specialties; and

WHEREAS, These practices will inevitably result in the curtailment of the practice of clinical pathology, which is essential for the continued growth and development of clinical pathology; and tend to discourage young, well-trained physicians from entering this essential field;

BE IT THEREFORE RESOLVED, That the House of Delegates recommend to all state medical societies that they hold conferences with the authorities of the state boards of health with a view of limiting the services offered by the laboratories of these organizations. In general, laboratory services by the state board of health laboratories should be confined to requests made by health officers or others in authority representing municipal, township, county and state public health and welfare organizations, and to requests made by physicians whose patients find it difficult or impossible to pay the cost of laboratory services of this kind in the customary manner. In general, laboratories of the state boards of health should not provide services at taxpayer's expense to persons who are able to provide for themselves, and

BE IT FURTHER RESOLVED, That the House of Delegates, through the Council on Medical Education and Hospitals and the Section on Pathology and Physiology undertake an educational campaign to set forth these problems to the medical profession.

Resolution H. Introduced by Howard D. Fabing, Cincinnati:

WHEREAS, The fundamental purpose of this Association is the furtherance of scientific study, and

WHEREAS, Our members who contribute to the scientific program are deserving of proper recognition for contributions of merit,

THEREFORE, BE IT RESOLVED, That the Committee on Scientific Work be delegated to tender suitable awards to the exhibits offered by members at the Annual Meeting which are respectively, best, second and third in scientific value, and

BE IT FURTHER RESOLVED, That the Committee on Scientific Work study the advisability of tendering suitable awards for scientific essays read by members at the Annual Meeting, which are respectively, best, second and third in scientific value, and

That this committee report its opinion on this proposal during the ensuing year.

Resolution I. Introduced by The Council:

RESOLVED, That the House of Delegates approve the following report and recommendations of the Committee on Public Relations and Economics, which have the endorsement of The Council:

At the 93rd Annual Meeting of the Ohio State Medical Association, May 3 and 4, 1939, at Toledo, Ohio, the House of Delegates adopted "Substitute Resolution D" which directed The Council to study the advisability of legislation which would provide for the payment of physicians from the "State Maintenance and Repair Fund" for services rendered to indigents injured in motor vehicle accidents, and to report its findings to the House of Delegates at the 1940 Annual Meeting.

At the first meeting of The Council after the 1939 Annual Meeting, The Council requested the Committee on Public Relations and Economics to make a thorough study of this question and to present information and recommendations on which The Council could base its report to the House of Delegates at the 1940 Annual Meeting May 14-16, in Cincinnati.

This question is one which has been before official bodies of the Ohio State Medical Association periodically since 1930. About that time the Ohio Hospital Association started to draft a proposal to provide for the reimbursement of hospitals from the "State Maintenance and Repair Fund" for the hospitalization of indigents injured in motor vehicle accidents. The "State Maintenance and Repair Fund" is a fund raised through the annual motor vehicle license tag tax and has been used for years for enforcing and paying the expenses of administering the law relative to the registration and operation of motor vehicles, maintaining and repairing public roads, highways, streets, etc. Through amendments sponsored by the hospital association and enacted by the Ohio General Assembly in 1933 and 1935, the statute was modified so that a portion of the "State Maintenance and Repair Fund" may be used for the reimbursement of hospitals, as stated above, the amount depending, of course, on appropriations made by the General Assembly, which has shown an inclination in recent years to curtail the amount of money available for this purpose.

At the time this question was under discussion by the hospital association, several informal conferences were held by officials of that association and officials of the Ohio State Medical Association. In June, 1932, the hospital proposal was formally presented to The Council of the Ohio State Medical Association. The question was referred to the Committee on Public Policy for study, especially as to whether or not a provision for payment of physicians' fees from the state fund should be inserted in the proposed bill of the hospital association. In November, 1932, on recommendation of the Committee on Public Policy, The Council withheld endorsement of the proposal and voiced specific opposition to the inclusion of a provision for payment of medical and surgical fees from the "State Maintenance and Repair Fund," basing its opposition on the established policy of the State Medical Association against a state system of medical service. Minutes of meetings of The Council show that on two later occasions—January, 1933, and January, 1935—The Council reaffirmed its previous policy of opposition to such a provision.

Also, this question had been before the House of Delegates of the State Medical Association on

three occasions prior to the 1939 Annual Meeting. Resolutions seeking to have the House of Delegates endorse a provision for payment of physicians from the "State Maintenance and Repair Fund" were presented at the 1934, 1936, and 1938 Annual Meetings. On each occasion the House of Delegates defeated the resolution thereby refusing to overrule the policy which had been established by The Council.

The Committee on Public Relations and Economics has reviewed carefully the arguments pro and con on this question. Reports presented to The Council on this matter; motions adopted by The Council; the text of resolutions on this subject presented to the House of Delegates; reports of the Reference Committee on Resolutions of the House of Delegates; and other information obtained from various sources have been analyzed. In doing so, the committee has endeavored to analyze the ramifications of this question, including the possible effects of such legislation on the whole question of medical care in Ohio for the indigent or near-indigent and on the legislative program of the State Medical Association. Also, established policies and principles of the Association on questions of this kind have been taken into consideration and an effort has been made to anticipate some of the possible results should a proposal of this kind be sponsored by the medical profession.

After considering thoroughly all available data and the various arguments for and against such a proposal, the Committee on Public Relations and Economics, on February 17, 1940, on motion by Dr. Smith, seconded by Dr. Platter and carried, unanimously voted to recommend to The Council that The Council report to the House of Delegates that it believes the Ohio State Medical Association should not, at this time, sponsor legislation which would provide for reimbursing physicians from the "State Maintenance and Repair Fund" for the professional care of indigents injured in motor vehicle accidents.

As the basis for its recommendation, the Committee on Public Relations and Economics offers the following reasons why it believes the sponsorship of such legislation by the State Medical Association at this time would be unwise and why, in the opinion of the committee, such a method of payment of physicians for medical care of this class of indigents is unsound and objectionable:

1. Such legislation is unnecessary as the state already has laws providing for the furnishing of necessities, including medical care, for all the needy. An indigent injured in a motor vehicle accident and requiring medical care is entitled to and eligible for medical care at public expense under existing poor relief statutes, the same as an indigent disabled because of an injury received in some other way or because of illness. Present poor relief laws establish administrative procedure to provide for the financing of medical care for all the needy. If administration has been faulty and financing inadequate in some instances, the statutes themselves are not to blame. Improvement in administration and financing can be brought about without legislation such as the proposal referred to in this report.

2. It would hamper the present concerted efforts of the medical profession through the State Association and county medical societies to bring about general improvements in the present program providing for the payment of physicians for the care of all the needy, regardless of the origin

of disability. Physicians caring for indigents who may not be the victims of motor vehicle accidents are entitled to just as much consideration as the physician who may be called upon to render service to the needy person injured in a motor vehicle mishap. Attempts to bring about a more adequate medical program for all classes of indigents can not be effective if efforts are to be directed toward individual, isolated problems rather than toward the whole question of reimbursing physicians for services to all receiving relief at public expense.

3. It would provide for the earmarking of funds, a principle which is not looked upon with favor by the present administration and present Ohio General Assembly. Present relief statutes do not provide for the earmarking of funds for food, clothing, shelter, medical care, and other necessities. As a matter of fact, the present trend in government in Ohio is away from this policy because of the innumerable administrative difficulties involved and inequities which result. Therefore, it may be assumed that a proposal providing for the earmarking of funds for one specific necessity—medical care—would not be regarded in a favorable light by the General Assembly.

4. It would establish what would virtually amount to a new state department or bureau at a time when efforts are being directed toward curtailment of government, government costs, and government personnel, because it would be impossible for the Bureau of Motor Vehicles to handle the increased administrative responsibilities and duties which would result without adding additional personnel, including clerks, investigators, medical reviewers, etc.

5. It would establish a separate and distinct state agency—in effect a state medical care agency and system. A centralized system of medical care with autocratic administrative powers vested in a state bureau has been opposed by the medical profession in Ohio. Such a system would lead to administrative difficulties, dissatisfaction and inefficiency as proved by the history of centralized methods of handling medical care such as the old FERA program. Also, such a program certainly would add to the public relations problems of the profession as it would create another agency with which the profession would have to deal, nullifying in part present efforts of the medical profession and others to bring about consolidation of agencies and departments handling phases of medical care, but leaving administrative responsibilities and details in the hands of local administrators. Creation of such a system of centralized state control is a violation of the existing policy of the State Association which holds that in all programs of this kind there should be an absolute minimum of state control and supervision.

6. The number of individuals covered under such a proposal is quite small in comparison to the number of all indigents. Therefore, it would be much wiser for the medical profession to strive for improvements in the general program of medical care for all needy and concentrate its efforts in that direction.

7. Introduction of such proposed legislation at the next session of the Legislature would undoubtedly handicap the medical profession in obtaining the enactment of other legislative proposals, some of which will be of vital importance. Also, a campaign of this kind probably would weaken the position of the State Association in

opposing objectionable and detrimental measures. It is quite likely that the introduction of such a proposal would meet with unfavorable reaction on the part of many members of the General Assembly, who might take the attitude that the medical profession is not entitled to special consideration and special legislation, but that physicians should utilize the ways open to purveyors of all necessities to obtain reimbursement for services rendered to those entitled to relief at public expense. "Special interest" proposals never are popular among most members of the General Assembly.

8. The present statute providing for reimbursement of hospitals is unpopular among those interested in the construction and maintenance of the public highways. Efforts to include a provision for financing medical care from the "State Maintenance and Repair Fund" undoubtedly would create additional hostility on the part of such persons and organizations, culminating in a move to repeal the hospital reimbursement provisions. Obviously, repeal of such provisions would add to the financial difficulties of many hospitals.

9. Such legislation would be bitterly fought by those who believe taxes levied on motorists should be used exclusively for highway purposes. The medical profession can not afford to alienate these diversified and influential groups. At the present time such groups are considering the possibility of offering to the electorate a proposed amendment to the Ohio Constitution to forbid the use of money raised through levies on motorists for any purpose but for road building and maintenance. Should such an amendment carry, a physicians' reimbursement law would be nullified and, thus, the medical profession would be right back where it started, except much time and effort would have been lost which could have been used to advantage in bringing about necessary improvements in the general poor relief laws and relief program for all classes of indigents.

10. Undoubtedly, the introduction of such a proposal would encourage proponents of compulsory health insurance or some other program of "state medicine" to start agitation in Ohio for the enactment of a law creating a medical care program under state supervision, not only for the indigent and medically indigent but for wage earning groups. The medical profession should support its existing policy favoring the placing of responsibility for financing and administering of medical and health programs on local communities and local authorities. State-aid should be requested and given only in emergencies and, even when provided, administrative functions should be left with local relief authorities, not vested in some state bureau. These principles and a proposal which would create a "medical bureau" within the State Highway Department certainly would be in conflict.

To conclude, and repeat, the Committee on Public Relations and Economics recommends:

That a physicians' reimbursement law such as the one proposed should not be sponsored by the Ohio State Medical Association;

That in lieu of such action the Association should increase its efforts to bring about improvements in the general relief program in Ohio to the end that a more adequate medical care program for all the needy, not just one class of indigents, may be developed and all physicians engaged in rendering services to indigents, regard-

less of the cause of disability, may be adequately compensated for such services;

That the Association abide by its long established policy opposing establishment of state agencies vested with autocratic authority in administering and supervising medical care programs but favoring local administration and responsibility for necessary programs to provide medical care for the needy.

Resolution J. Introduced by The Council:

The Council respectfully presents the following resolution for the consideration of the House of Delegates at this 94th Annual Meeting of the Ohio State Medical Association:

"RESOLVED, That the House of Delegates of the Ohio State Medical Association authorize the preparation, under the direction of The Council, of an enabling act to permit the formation of agencies by the medical profession to operate medical service plans primarily designed for the low-income group and the introduction of such proposal at the regular session of the Ohio General Assembly opening in January, 1941."

In order to assist the House of Delegates and the Reference Committee on Resolutions in their deliberations, The Council offers the following data and explanations:

Since the Fall of 1938, special committees of the Ohio State Medical Association working under the direction of The Council, have been assembling factual data on the availability and distribution of medical services in Ohio; analyzing the health and medical problems confronting certain groups of our population; and collecting information on health and medical programs sponsored by the medical profession in many parts of the United States and Canada. Also, these committees have studied medical and health systems in operation in various European countries and have kept a watchful eye on trends and developments at Washington and on medical-health programs proposed by employer and employee groups, farm organizations and welfare agencies.

Aided by reports which it has received from the Coordinating Committee which functioned until May, 1939, and those submitted during the past year by the Committee on Medical Service Plans, The Council has arrived at the following conclusions:

1. There is a need in some parts of Ohio, notably in several of the large urban communities, for improvements in methods of distributing available medical services.

2. There are groups of citizens in some parts of Ohio who find it difficult to meet the costs of medical care in cases of unusual or prolonged illness but who could meet such costs if provided with an opportunity to budget for medical services through the pooling of funds on a monthly-payment basis.

3. There are other communities in Ohio where there are few, if any, problems such as those existing in metropolitan centers and referred to above.

4. Compulsory health insurance or any other plan of state-managed medical services are not solutions to the problems confronting those of modest means. In fact such schemes would be detrimental rather than beneficial to the citizens of Ohio.

5. It is the responsibility of the medical profession to assist in bringing about a better distribution of its services where needed and in sponsoring programs to make it easier for those of modest means to meet the costs of prolonged illness and specialized services in localities where economic conditions make it difficult for them to do so.

6. Unless the medical profession takes the lead, especially in areas where these problems are most prevalent, there is imminent danger that others who are not qualified will initiate medical care programs.

7. Although the question of supplying medical care for indigents is not a part of the problem under consideration, we appreciate that provisions for financing medical care for the poor are inadequate in many localities despite improvements which have been made during the past year as a result of legislation enacted by the last General Assembly. The Council has this situation under consideration and will undertake the responsibility of trying to obtain additional improvements in the statutes and administrative procedure.

In addition to the studies which have been made by committees of the State Association, much consideration has been given to these problems by committees of a number of local medical societies and academies in Ohio, notably Toledo, Cincinnati, Cleveland, Akron, and Youngstown—metropolitan and industrial centers where the medical and health programs of large groups of low-wage earners are more acute than in the rural or semi-rural areas.

Several of the medical societies in these urban communities desire to organize local medical care programs particularly designed to assist those of the low-income group—in fact have plans drafted which could be started almost immediately. However, there are certain legal problems which must be worked out properly before these societies may proceed. The State Association has been requested by them to take the lead in sponsoring necessary legislation, for in the final analysis legislative efforts cannot be successful unless the entire membership gives its support.

That is the question which The Council requests the House of Delegates to consider at this time.

The legal problem arises from the question as to whether the distribution of medical services on a prepayment basis to groups of individuals subscribing for such services through an administrative agency organized and operated by the physicians rendering the services is or is not insurance. This has been, and still is to some extent, a moot question. Legal opinions and court decisions from many parts of the country are at variance. In the absence of clear-cut and definite decisions on the question, those interested in establishing non-profit group medical service plans under the control of the medical profession on an experimental basis found it necessary to explore the possibilities of special legislation for establishing a sound legal foundation for such enterprises.

Early in 1939 the medical profession in five states: Michigan, New York, Pennsylvania, Connecticut and Vermont, sponsored legislation—enabling acts—permitting the organization of non-profit agencies under the control of the medical profession to administer the distribution of medical services on a prepayment basis. Proposals were enacted in those states.

In an article concerning the Michigan Enabling

Act, William J. Burns, executive secretary of the Michigan State Medical Society, made these pertinent comments which reveal briefly the legal problem involved and the reasons for enabling legislation:

"The primary legal problem involves the question of whether a medical service plan should be subjected to special regulation as insurance or whether such a plan should be considered merely as a service agreement. The essential consideration is the importance of the undertaking from the point of view of the public and the likelihood that the organization promising to make provision for medical services will be able to perform the agreement. The first step toward regulation was to insist that medical service plans should qualify under the insurance laws which are specifically designed to protect persons who purchase contracts offering future benefits. Without a special enabling act, the distinction between a medical service contract and an insurance contract is difficult to draw. In addition, there are two obstacles to the organization of medical service plans under insurance regulations: The requirement of large capital funds and taxation. The purpose of the Enabling Act is to create special regulations governing the operation of medical service plans, to place them under the supervision of the Commissioner of Insurance—but to remove the obstacles to regulation under the insurance laws. The Michigan Enabling Act accomplished this purpose and definitely established the special status of medical service plans."

In six states, including Ohio, proposed enabling acts were not enacted by the state legislatures in 1939. In some of those states and in others, the medical profession has prepared measures for introduction at the next sessions of their legislative bodies. The proposed Ohio enabling act was drafted by the Coordinating Committee of the Ohio State Medical Association and was introduced into the Ohio General Assembly with the consent of The Council. As stated, the proposal was not enacted by the State Legislature due to a series of circumstances, including the following: Lack of time for an educational program among members of the profession as well as the public as to the necessity and real purposes of the measure, which weakened efforts in behalf of the proposal; opposition from some members of the profession who misunderstood the intent and provisions of the bill; opposition from some outside the profession, including individuals who were misinformed about the content of the proposal and certain groups always opposed to anything sponsored by the medical profession. Obstacles such as those which existed at that time are not insurmountable providing proper groundwork is laid by means of an educational program.

In the light of information and advice submitted during the past six or eight months by the Committee on Medical Service Plans, The Council has reached these additional conclusions:

1. Local medical societies or academies desiring to inaugurate local medical service plans should be assisted in efforts to remove obstacles which are preventing them from doing so.

2. Experience in other states and the advice received from our own local counsel indicate conclusively that the passage of an enabling act is the soundest method of solving the legal difficulties involved.

It should be clearly understood by the House of Delegates that The Council is requesting it to

pass on only one question: Shall the Ohio State Medical Association sponsor an enabling act? It is not asking the House of Delegates at this time to consider the details and provisions of any medical service plan.

Moreover, the House of Delegates should bear in mind the following points with respect to an enabling act:

1. It would be entirely a permissive statute, not compulsory or mandatory but comparable to laws authorizing the formation of any type of organization, a corporation, a bank, or an insurance company, setting forth how they may be organized, but not compelling anyone to do so.

2. It would contain only general provisions governing the organization of an agency to administer a medical service plan under the control of the medical profession.

3. The act would not set up a medical service plan nor compel any county medical society to do so.

4. It would carry no provisions relating to the premiums, administration, coverage, fees, etc., of a medical service plan. Such matters would be left to the discretion of the medical society organizing a plan should it decide to do so.

5. The act would place control of a medical service plan in the hands of the medical profession, with some supervisory authority with respect to premium reserves, financial reports, etc., delegated to the Superintendent of Insurance for the protection of the subscribers—the public.

6. The Superintendent of Insurance would have no control over policies on medical matters, professional services, relationship between physicians and patients, fees, type of plan, etc.

7. The act would be exactly what the name given to it implies—an act which would permit the organization of a medical service plan by the medical profession, if and when it should decide to do so, in compliance with general regulatory provisions for the protection of the public.

Before submitting this matter to the House of Delegates, The Council analyzed a report from the Committee on Medical Service Plans on the conferences on medical service plans held in each Councilor District on authorization of The Council. This report revealed a sentiment among most of the county society officers and committeemen, who attended these district conferences, in favor of sponsorship of an enabling act by the Ohio State Medical Association.

Therefore, because of the facts which have been submitted and sensing a general sentiment throughout the state in favor of concrete action by the State Association with respect to enabling legislation, The Council believes that the House of Delegates should advise and instruct The Council on this question, for we have learned from experience that our efforts cannot be satisfactory unless there is unity of interest and action within our own ranks.

INVITATIONS FOR 1941 ANNUAL MEETING

On behalf of the Cleveland Academy of Medicine and the City of Cleveland, Russell L. Haden, president of the Cleveland Academy of Medicine, invited the Ohio State Medical Association to hold its 1941 Annual Meeting in that city. There being no further invitations, this invitation was

referred to the Reference Committee on Time and Place of 1941 Annual Meeting.

Following announcements relative to the program for the three days' meeting, the House of Delegates recessed until Wednesday noon, May 15.

MINUTES OF THE SECOND SESSION

THE second and final session of the House of Delegates at the 94th Annual Meeting was called to order by President Smith at 1:00 P.M., Wednesday, May 15, following a luncheon for delegates.

The Committee on Credentials reported no changes in the official roll call. The roll call showed 108 delegates and officers present.

TIME AND PLACE FOR 1941 ANNUAL MEETING

Reporting for the Committee on Time and Place of 1941 Annual Meeting, John M. Van Dyke, Canton, the chairman, presented the following report:

"The Committee on Time and Place of the 1941 Annual Meeting recommends that the House of Delegates instruct The Council to make arrangements for holding the next Annual Meeting in Cleveland during the time of the 1941 Session of the American Medical Association in that city. Further, the committee recommends that the Annual Meeting of this Association be restricted to business sessions of the House of Delegates inasmuch as Ohio physicians will have an opportunity to attend the elaborate program and exhibits given in connection with the A.M.A. meeting."

On motion by C. C. Sherburne, Columbus, seconded by H. V. Dutrow, Dayton, and carried, the report of the committee was approved and adopted.

REPORT OF THE COMMITTEE ON PRESIDENTIAL ADDRESS

Robt. T. Allison, Jr., Akron, chairman of the Committee on Presidential Address, presented the following report which, on motion by E. P. McNamee, Cleveland, seconded by Russell L. Haden, Cleveland, was approved and adopted:

Your committee submits, for your consideration, the following report on the address of President Parke G. Smith, delivered at the opening session of the House of Delegates, May 14, 1940. Your committee has heard, with much interest, the review of the activities of the Ohio State Medical Association during the past year. We note that the activities of the Association are expanding very rapidly and that, while we are a scientific association, the economic situation of our country is rapidly forcing us to concern ourselves more and more with such matters as the distribution of medical care, education of the public, maintenance of standards of practice, etc.

We note that the President has not been unmindful of this change and in his message he outlines some of the steps that are being initiated to cope with these changes. Perhaps some index of the need for closer organization of the medical

profession may be seen in the increase in membership during the past year. This increase occurred in spite of an increase in dues of the State Association and also an increase in dues of some of the county societies.

Your committee feels that the formation of the Bureau of Public Education is a great step forward in a field that has been sadly neglected in the past. The public will never understand the problems of the medical profession unless we have an organized attempt to explain these problems to them.

Your committee wants again to emphasize the need for all members to realize that they are the Ohio State Medical Association. It is most important that you take an active interest in the work of your Association, that you see that your elected officials carry out the work that they are elected to perform.

Your committee wishes to congratulate Dr. Smith and The Council for the splendid administration they have given us. We wish to congratulate them for the forward steps they have taken during the year and we hope that your Association will continue, in the future, to serve you as efficiently as Dr. Smith's report shows it has done during the past year.

REPORT OF COMMITTEE ON ANNUAL REPORTS

The report of the Committee on Annual Reports was presented by Paul H. Beaver, Leontonia, the chairman. On motion by Ralph Carothers, Cincinnati, seconded by E. O. Swartz, Cincinnati, and carried, the committee's report, reading as follows, was approved and adopted:

After careful study and discussion of the annual reports published in the April, 1940, issue of *The Ohio State Medical Journal* the Reference Committee on Annual Reports submits the following.

Annual Report, Treasurer and Committee on Auditing and Appropriations:

The books of the Ohio State Medical Association and *The Ohio State Medical Journal* were audited by Keller, Kirschner, Martin and Clinger, certified public accountants, Columbus. The reference committee approves the report as presented.

Committee on Public Relations and Economics:

As stated by the Public Relations Committee in its annual report, probably most of the activities of the Committee on Public Relations and Economics since the last annual meeting are familiar to most of the members, as reports have been made from time to time, by consent of The Council, and published in *The Ohio State Medical Journal*.

The Reference Committee after a careful perusal of the annual report of the above committee, wishes to commend the members thereof for their untiring efforts on behalf of the profession since our last annual meeting.

The work done in promoting state-wide interest among the members of the profession in legislation pertaining to medicine and public health has been highly commendable. The same interest has been manifested in national legislation, and the influence of the Ohio State Medical Association has been recognized throughout the nation. The resolution adopted by Council on recommen-

dation of the Public Relations and Economic Committee, with reference to hospital building proposal meets the approval of the medical profession throughout the state.

The action of the committee in its statement of policy with reference to medical care being placed within the reach of all persons, regardless of their economic position, is clear and conclusive.

At the present time the committee's activities, relative to Medical Service Plans, are receiving attention, and a series of district meetings have been held. The meetings are supported by representatives of the county medical societies.

A campaign of education is under way for establishment of an enabling act which will give a legal basis for inauguration of group medical service in such areas as the profession deems feasible and desirable.

Due attention has been given to other matters such as fees and insurance papers; workmen's compensation, and many questions too numerous to mention.

Judicial and Professional Relations Committee:

Your committee wishes to direct particular attention to the detailed and carefully arranged report of the Judicial and Professional Relations Committee and to commend it to the House of Delegates.

With reference to the basic structure of a constitution and by-laws which constitutes the organic law governing the affairs of a society and the conduct of its members, the committee advises against excessive detail and points out that such documents should contain only basic provisions and not attempt to perform judicial and administrative functions. Also the committee points out that the constitution and by-laws of a component society should conform with the pattern set by the Ohio State Medical Association and consist of plain, definite articles, phrased in language easily understood and interpreted, in order to make such an instrument workable.

As to revision of a county society's constitution and by-laws, the committee offers 15 points to be followed in such a procedure. Each point is concisely stated and the reason quite evident.

It is noted with satisfaction by the Reference Committee that the Committee on Judicial and Professional Relations, has not had to consider any questions involving disciplinary action against members, during the past year, but realizes that such a situation may arise at any time; therefore it cautions all county societies that there are certain basic principles which must be observed when disciplinary action is contemplated or taken. To govern such exigencies the committee lists 18 points.

The committee is furthering its program of education and prevention of malpractice suits or threats of suit, listing 10 pertinent questions which should be carefully learned and followed by all members. Knowledge of the statutes of limitation is urged.

The legal duty and responsibility of physician to patient are reiterated and elaborated upon and the principles of medical ethics are stressed.

Each member of the Reference Committee feels it would be unjustly detracting from the meritorious statement of the Judicial and Professional Relations Committee in its entirety, were it to attempt to emphasize or draw specific attention to any portion or sub-heading contained in the

body of this report. Therefore in praising the report of this committee, it is recommended that each component society be advised to have this report read by its secretary at a meeting during the ensuing year.

Committee on Poor Relief:

The Reference Committee wishes to commend the Committee on Poor Relief, not only for an excellent report but also for the time it has so unselfishly given and the constructive work it has done. It is urged that every member read this report.

The new State Relief Act, known as House Bill 675, is well explained. It is to be noted relief administration is now decentralized and placed under the supervision of cities and counties. Medical care has now been recognized as of the same status as other necessities. Responsibility rests with local authorities and physicians of the county societies and there is no limit on the amount which may be spent for medical relief.

Interesting statistics, as a result of the answers to a county society questionnaire, are reported and would indicate that there has been an improvement in the plan of relief administration relating to medical care, and that the present setup is working fairly well in the majority of instances.

Attention is called to the problems relating to financing the relief load and it is obvious that this is but a single phase of the whole question of finding adequate funds to finance the complete program of poor relief. There is still a failure of some officials and taxpayers to meet their responsibility. Local communities must meet their share in order to be eligible to receive a share of state aid and this committee feels this is as it should be.

Because for many bitter years the medical profession carried the medical relief load itself some communities are still found which fail to realize the public responsibility under the present years of economic stress and so have consistently failed to provide funds for medical care for the poor income groups.

In answer to the question, "What can county societies do to establish a satisfactory medical relief program", although the conditions vary throughout the state, yet it is basic that to get any place the profession must work through the county medical society and that the quotation "United we stand, divided we fall", was never more applicable. It is suggested that each local society have a proper negotiating committee, know what it wants, press its case energetically, solicit public support for its requests, know and have facts and show that a workable medical care program for the poor is essential. Boiled down it is a case of a local sense of responsibility and local initiative.

We feel that the members of the profession heartily agree with the statement that "Centralization of responsibility, administration and dictation at Columbus should be avoided. That lesson was learned some years ago under the old FERA medical relief program."

Committee on Education:

The Committee on Education has decided to alter the regional postgraduate courses for 1940. Instead of six regional meetings with two lectures at each meeting the committee is planning

on three meetings of four lectures each. Each meeting is to have two late afternoon lectures and two in the evening. In view of the fact that the attendance was less in 1939 at the regional meetings, the committee is to be commended on trying another plan. The state has now been divided into 10 districts instead of five as formerly. It is felt this will reduce mileage and prompt greater attendance.

The Bureau of Public Education which was sponsored by the Committee on Education is to be commended for the active support given to programs of interest to laymen.

These increased activities represent the response of the profession to the demands of the public that we keep abreast of the times in educational matters.

A very fine piece of work has been done by many physicians throughout the state in addressing lay groups during the past year. Some of this has been by radio. Many of our profession have obtained a fine radio technique in public speaking.

We heartily commend the work of this committee to the House of Delegates.

Bureau of Public Education:

Establishment of this new Bureau by the House of Delegates in 1939 promises to be one of the most important acts relating to the correction of the trend of the public to regard the physician as a menial servant and should tend toward regaining that enviable position physicians of the past held, an intangible something, one perhaps of awe and respect. Our greatest error has been to drift along without any effort to keep this respect while subversive elements insidiously and continuously planted the seeds of untruth in the public mind to further their selfish interests without regard for resulting detriment to public health. In the interest of a justifiable self defense and in the interest of the public we serve, this act impresses us as one of the most constructive that could have been instituted. Here then is a well planned procedure to present dependable authentic information of medical nature to the lay public by use of all channels of communication from radio to press. The ultimate value of such a concerted effort is limitless.

In its report the Bureau describes the flexible program undertaken and the careful study given to find correct methods for a course of action to assure that it serves both the public and the profession. Its news has consisted of two classifications, namely, health education and activities of medical organizations and problems in medical economics. News and not propaganda has been stressed. Personal contact of physicians with local editors is advised. Lists of public speakers for lay organizations have been prepared, material for talks has been collected and made available to members and a model talk on the subject "Health of America's Millions", has been prepared.

A poster showing the dangers facing the medical profession has met with unlimited approval.

Plans for a better exhibit at the State Fair are under way.

With a year of pioneering over and with the excellent cooperation this Bureau merits we cannot help but urge the component societies to assist and use this service.

We heartily commend this report and feel that

its work is an approach to the retention of the proper physician-patient relationship.

REPORT OF COMMITTEE ON RESOLUTIONS

G. A. Woodhouse, Pleasant Hill, chairman, reported for the Committee on Resolutions. Dr. Smith, the President, ruled that the House of Delegates should act on each section of the report as presented, which was done. The committee's report was as follows:

The Reference Committee on Resolutions held two prolonged meetings for the purpose of considering the 10 resolutions presented at Tuesday's session of the House of Delegates. A number of individuals appeared before the committee to discuss resolutions in which they were particularly interested. After thorough consideration of the resolutions the committee herewith returns them to the House of Delegates with recommendations as follows:

Resolution J

Resolution J from The Council pertains to the question of enabling legislation on medical service plans. The committee reviewed carefully the explanatory statement which accompanied this resolution. (See pages 655-656, these proceedings.) It assumes that all members of the House of Delegates have done likewise as copies of the resolution and statement were distributed at the first session of the House of Delegates. Your committee is thoroughly in agreement with this resolution and recommends its adoption. It reads as follows:

"RESOLVED, That the House of Delegates of the Ohio State Medical Association authorize the preparation, under the direction of The Council, of an enabling act to permit the formation of agencies by the medical profession to operate medical service plans primarily designed for the low-income group and the introduction of such proposal at the regular session of the Ohio General Assembly opening in January, 1941."

On motion by Dr. Woodhouse, seconded by Charles R. Meek, Lorain, and carried, the report of the committee on Resolution J was adopted.

Resolution I

Resolution I, also presented by The Council, recommends that the Ohio State Medical Association should not sponsor legislation which would provide for the payment of physicians from the "State Maintenance and Repair Fund", primarily designed for the maintenance and repair of public highways, for services rendered by physicians to victims of motor vehicle accidents.

Your committee agrees with The Council that the Association should not sponsor such legislation and recommends that the resolution against such legislation be adopted for the following reasons so well set forth in the explanatory statement which was a part of the resolution: (See

pages 653-654, these proceedings, for the 10 points listed by the committee).

On motion by Dr. Woodhouse, seconded by D. J. Slosser, Defiance, and carried, the report of the committee on Resolution I was adopted.

Resolution A

Resolution A, introduced by Walter K. Stewart, Mahoning County, read as follows:

"WHEREAS, The treatment and care of the mentally ill is essentially a medical problem involving not only the field of psychiatry, but also surgery, and medical treatment for physical ailments, with which it is inseparably connected, and

"WHEREAS, The hospital facilities providing the necessary medical treatment are woefully inadequate and inefficient in Ohio, and

"WHEREAS, The present State Hospitals for the mentally ill do not, and cannot afford the medical profession the opportunity of assisting in the performance of the above medical services, by reason of their limited number and location, and

"WHEREAS, The law of Ohio makes it the duty of the State to provide

"'Humane and medical treatment and care, preventive and curative, for mentally ill, insane, feeble-minded and epileptic persons,' and 'to promote the study of the causes of mental illness, insanity, feeble minds and epilepsy, with a view to the earliest possible cure and ultimate prevention; to protect the people of Ohio from the ultimate danger and unnecessary expense that results from placing in a penal institution insane and mentally defective persons who require for their own safety and the protection of society, present and future treatment or detention in a hospital for the mentally ill or insane; . . . ' and

"WHEREAS, This duty of the State of Ohio in reference to the mentally ill and insane can be performed by putting into execution General Code, Section 1890-16, which provides that

"The division (of mental diseases) may develop, extend and complete a state-wide system of psychopathic hospital service by establishing, constructing, purchasing, leasing or contracting for institutions known as out-patient hospitals as defined and provided for herein, in suitable districts, either separate from or in connection with existing or future state hospitals, which out-patient hospitals shall be used for the observation, care and treatment of the mentally ill, and especially for those whose condition is incipient, mild or of possible short duration. Such out-patient hospitals shall perform any of the work or duties authorized to or required of the division of mental diseases. . . . ' and

"WHEREAS, The intent, purpose and spirit of the above law can, from a medical standpoint, be carried out and put into effect with beneficial result and with an ultimate savings of lives and money, and

"WHEREAS, Since the passage of the above law, no appropriations have been made by the legislature of Ohio to establish such needed institutions, now

"THEREFORE, BE IT RESOLVED, That the Mahoning County Medical Society recommend to the Ohio State Medical Association that a proper committee be appointed to meet with the Division of Mental Diseases, and the Director of Public Welfare of Ohio, for the purpose of ascertaining and reporting to the Ohio State Medical Association the reasons that the psychopathic hospital service as provided in the General Code, Section 1890-16, has not been put into effect at any place within the State of Ohio."

The Committee on Resolutions recommends that the final paragraph of this resolution be revised to read as follows and that the resolution as thereby amended be adopted by the House of Delegates:

"THEREFORE, BE IT RESOLVED, That the Mahoning County Medical Society recommend to the Ohio State Medical Association that it instruct The Council to appoint a committee to meet with the Division of Mental Diseases, and the Director of Public Welfare of Ohio, for the purpose of ascertaining and reporting to The Council the reasons why the psychopathic hospital service as provided in the General Code, Section 1890-16, has not been put into effect at any place within the State of Ohio."

On motion by Dr. Woodhouse, seconded by Howard D. Fabing, Cincinnati, and carried, the report of the committee on Resolution A was adopted.

Resolution B

Resolution B, introduced by John M. Van Dyke, Stark County, read as follows:

"WHEREAS, The latest available vital statistics show the relative low mortality and also incidence rate of infantile paralysis in comparison with other preventable or controllable diseases such as heart disease, cancer, pneumonia, venereal disease, tuberculosis and diabetes:

"WHEREAS, Nation-wide crusades sponsored and directed by laymen have effectually mobilized public sympathy and vast monetary resources;

"WHEREAS, Such crusades have been launched against diseases because of their news value and popular appeal rather than because of high incidence of mortality rates as in the case of infantile paralysis;

"WHEREAS, Since nearly every state has justly and properly assumed the responsibility of care and control of crippled children;

"WHEREAS, Definite and considerable advance has been made in the treatment of many more common diseases such as, pneumonia, venereal disease and diabetes for which no national appeal for funds has been made;

"RESOLVED, That the Stark County Medical Society recommend to the Ohio State Medical Association House of Delegates that public appeal of national scope for contributions for specific health purposes be made only after approval by the American Medical Association.

"RESOLVED, That the Ohio State Medical Association petition and urge the American Medical Association to assume leadership and formu-

late a nation-wide health program to mobilize available public resources and to allocate and direct such resources rationally in accordance with statistical proof of greatest need;

"RESOLVED, That the Ohio State Medical Association present the above resolution to the American Medical Association at its next meeting."

The committee feels that the adoption of this resolution would be construed by some to mean that the medical profession is opposed to all health programs having the active support or sponsored by lay groups, even though some of these programs are of proven benefit to the public. Obviously, this is not the case and it would be unfortunate if this interpretation should be placed on any action which might be taken by the House of Delegates.

We believe that the medical profession should assume leadership in all medical and health matters whether national, state or local in scope, but we feel that it would be unwise for the profession to take any action which would give the impression that it wants to be a supreme dictator on activities in which many other groups also are vitally interested and whose active assistance is necessary in order to make such programs effective.

For these reasons the committee recommends that this resolution be NOT adopted.

On motion by Dr. Woodhouse, seconded by R. R. Hendershott, Tiffin, and carried, the report of the committee on Resolution B was adopted.

Resolution C

Resolution C, introduced by John M. Van Dyke, Stark County, read as follows:

"WHEREAS, The State of Ohio provides adequate treatment for diphtheria, rabies, tuberculosis, crippled children and syphilis;

"WHEREAS, Improved methods in care of pneumonia and diabetes have markedly reduced death rate and prolonged life and health, while at the same time the cost of medical care in these diseases had markedly increased;

"RESOLVED, That the Ohio State Medical Association use its best efforts to secure necessary legislation to provide approved sera and specific drugs for the treatment of such diseases among patients of the lower income group."

It is the belief of the Committee on Resolutions that legislation is not needed to carry out the intent and purposes of this resolution. The committee has been reliably informed that some funds are already available for the activities enumerated in the resolution, and that a program such as the one suggested is at present being considered by the State Department of Health. Therefore, your committee recommends the adoption of the following Substitute Resolution:

"WHEREAS, It is desirable that every effort should be made to provide sera and drugs for the treatment of pneumonia and diabetes for

those who cannot bear the cost of such therapeutic agents;

"BE IT RESOLVED, That the Ohio State Medical Association cooperate with the State Department of Health by offering advice and guidance to that Department in its efforts to meet this problem."

On motion by Dr. Woodhouse, seconded by Guy E. Noble, St. Marys, and carried, the report of the committee on Resolution C was adopted.

Resolution D

Resolution D, introduced by Walter K. Stewart, Mahoning County, read as follows:

"WHEREAS, Tuberculosis is a disease of profound manifestations throughout the human body, and

"WHEREAS, One affected with tuberculosis is liable to intercurrent and unrelated diseases, and

"WHEREAS, Many of our tuberculosis hospitals are overcrowded and professionally unequipped to treat other than tuberculous lung affections, and

"WHEREAS, It is unwise to expose non-tuberculous patients to contacts in a tuberculosis institution;

"THEREFORE, BE IT RESOLVED, That the Mahoning County Medical Society recommend that the House of Delegates of the Ohio State Medical Association go on record as favoring the policy of a rotating general visiting staff comprised of local, legally practicing physicians who have signified their willingness to serve and have been approved by the local medical society.

"FURTHERMORE, That this staff be self governed, and

"FURTHERMORE, That no unproven tuberculous cases be hospitalized in any tuberculosis institution."

The committee agrees with the policy expressed in this resolution. It recommends the adoption of the resolution, but in making such recommendation it wishes to point out that because of peculiar local conditions and circumstances it may be impossible in some communities to place the plan suggested into operation.

On motion by Dr. Woodhouse, seconded by D. W. Hogue, Springfield, and carried, the report of the committee on Resolution D was adopted.

Resolution E

Resolution E, introduced by E. O. Swartz, Hamilton County, on behalf of the Council of the Academy of Medicine of Cincinnati, read as follows:

"WHEREAS, It is claimed that there are many communities throughout the United States without a sufficient number of competent physicians, or totally lacking the services of physicians, and

"WHEREAS, There is now an overconcentration of both general practitioners and specialists in many of the metropolitan areas throughout the country, and

"WHEREAS, It would be desirable for this

available group of physicians to be afforded an opportunity to provide medical care in communities lacking a sufficient number of physicians,

"THEREFORE, BE IT RESOLVED, That the delegates of the Academy of Medicine of Cincinnati be asked to present to the House of Delegates of the Ohio State Medical Association at its next meeting the urgency of this problem, and request, through the delegates of the Ohio State Medical Association to the American Medical Association, an investigation and report by the Council of Medical Education and Hospitals, and the Bureau of Medical Economics, as to the extent of such medical need throughout the country, and the means whereby such physicians can be made available in the communities that need them."

Inasmuch as studies already have been made by the American Medical Association and other qualified agencies to determine medical needs and to obtain data relative to the distribution of physicians, and inasmuch as such agencies have made and are making their findings available to all who may be interested in this question, your committee believes that this resolution requests the American Medical Association to undertake an assignment which already has been or is being carried out. For these reasons the committee recommends that this resolution be NOT adopted.

On motion by Dr. Woodhouse, seconded by A. A. Brindley, Toledo, and carried, the report of the committee on Resolution E was adopted.

Resolution F

Resolution F, introduced by Robt. T. Allison, Jr., Summit County, read as follows:

"WHEREAS, There is a growing tendency to create by legislation groups of specially privileged indigents;

"WHEREAS, Funds made available to provide hospitalization and medical care for these specially privileged (or pre-empted) groups are being raised by taxation often coming from the local communities under the guise of state or relief funds;

"WHEREAS, Payments from these funds for the medical care of such privileged (or pre-empted) groups as contrasted with non-payment for medical care of similar non-privileged groups has resulted (or will result) in the creation within the organized medical profession of specially favored groups of medical practitioners;

"RESOLVED, That the House of Delegates of the Ohio State Medical Association, recognizing the varying ability of various communities or sub-divisions to provide funds for relief purposes, express its desire to cooperate with these communities in the handling of their relief problems;

"RESOLVED, That the House of Delegates of the Ohio State Medical Association approve the findings of its special committee on poor relief as concerns the local responsibility of the various communities to provide funds for such medical relief;

"RESOLVED, That the House of Delegates of the Ohio State Medical Association extend this report to provide that the distribution of such funds, in particular such portions of these funds as are used for the procurement of medical service in hospitals, shall be made without discrimination as to type of disease treated and that, where sufficient funds are not available for payment in full of usual fees for such services, all regular practitioners of medicine in this community be paid the same proportion of their regular fees;

"RESOLVED, That the failure of a member of this society to cooperate in this program for medical relief be declared contrary to the best interests of this society and in violation of its code of ethics;

"RESOLVED, Further, that a copy of these resolutions be transmitted to the Legislative Committee of this Society, to the Governor of the State, to the Director of Public Welfare and to the appropriate committee of the General Assembly."

The committee considers the content of this resolution ambiguous and in need of clarification. The suggestions offered should be subjected to thorough investigation. Additional information is necessary, we believe, before definite action can be taken on the recommendations offered. Inasmuch as this committee has not had sufficient time to obtain such information and conduct the kind of an investigation necessary, we recommend that the resolution be referred by the House of Delegates to The Council for consideration, during which those especially interested in the resolution should be given an opportunity to present data to assist The Council in its deliberations and arriving at its conclusions.

On motion by Dr. Woodhouse, seconded by G. W. Flory, Eaton, and carried, the report of the committee on Resolution F was adopted.

Resolution G

Resolution G, introduced by C. E. M. Finney, Clark County, read as follows:

"RESOLVED, That the House of Delegates of the Ohio State Medical Association approve the following resolution and instruct the Ohio delegates to the American Medical Association to support such a resolution if presented at the forthcoming New York Session of the American Medical Association;

"WHEREAS, The continued growth and development of that special branch of medicine known as clinical pathology is necessary for the proper diagnosis and treatment of the sick and is essential to the science and practice of medicine, and

"WHEREAS, The growth of laboratories of state boards of health has been abnormally augmented by grants-in-aid from the federal government, and

"WHEREAS, The effect of these grants-in-aid is to extend these services to all citizens without regard to their ability to pay, and

"WHEREAS, The excessive development of laboratory medicine by state boards of health

serves as an entering wedge for state medical practice which apparently will include all medical specialties, and

"WHEREAS, These practices will inevitably result in the curtailment of the practice of clinical pathology, which is essential for the continued growth and development of clinical pathology; and tend to discourage young, well-trained physicians from entering this essential field;

"BE IT THEREFORE RESOLVED, That the House of Delegates recommend to all state medical societies that they hold conferences with the authorities of the state boards of health with the view of limiting the services offered by the laboratories of these organizations. In general, laboratory services by the state board of health laboratories should be confined to requests made by health officers or others in authority representing municipal, township, county and state public health and welfare organizations, and to requests made by physicians whose patients find it difficult or impossible to pay the cost of laboratory services of this kind in the customary manner. In general, laboratories of the state boards of health should not provide services at taxpayers' expense to persons who are able to provide for themselves, and

"BE IT FURTHER RESOLVED, That the House of Delegates, through the Council on Medical Education and Hospitals and the Section on Pathology and Physiology undertake an educational campaign to set forth these problems to the medical profession."

The committee heartily approves the policy expressed in this resolution and recommends its adoption.

Dr. Woodhouse moved that the report of the committee on Resolution G be adopted. Motion was seconded by C. C. Sherburne, Columbus. J. R. Jarvis, Van Wert, moved to amend the resolution as approved by the committee so that its provisions would not refer to diagnostic tests for syphilis. This motion was seconded by H. E. Shafer, Middlefield. The motion to amend was defeated. L. Howard Schriver, Cincinnati, then moved to amend the resolution in such a way that it would not oppose the use of government laboratories for diagnostic tests for syphilis where such tests are required by statute. This motion to amend was seconded by Howard D. Fabing, Cincinnati. The motion to amend was defeated. The House of Delegates then adopted the original motion by Drs. Woodhouse and Sherburne recommending the adoption of the resolution as originally presented.

Resolution H

Resolution H, introduced by Howard D. Fabing, Hamilton County, read as follows:

"WHEREAS, The fundamental purpose of this Association is the furtherance of scientific study, and

"WHEREAS, Our members who contribute to the scientific program are deserving of proper recognition for contributions of merit;

"THEREFORE, BE IT RESOLVED, That the Com-

mittee on Scientific Work be delegated to tender suitable awards to the exhibits offered by members at the Annual Meeting which are respectively, best, second and third in scientific value, and

"BE IT FURTHER RESOLVED, That the Committee on Scientific Work study the advisability of tendering suitable awards for scientific essays read by members at the Annual Meeting, which are respectively, best, second and third in scientific value, and

That this Committee report its opinion to Council on this proposal during the ensuing year."

The Committee on Resolutions is convinced that the membership of this Association deeply appreciates the contributions which are made annually by those members who contribute to the program of the Annual Meeting. Those who have presented scientific papers and exhibits deserve commendation and appreciation. However, because the exhibits are educational rather than ultra-scientific in character and because of the wide variety in the type of papers presented on the Annual Meeting program, your Committee on Resolutions is of the opinion that the suggestions made in this resolution are impracticable and could not be satisfactorily carried out. Therefore, the committee recommends that this resolution be NOT adopted.

On motion by Dr. Woodhouse, seconded by A. R. Basinger, North Canton, and carried, the report of the committee on Resolution H was adopted.

On motion by Dr. Woodhouse, seconded by A. A. Brindley, Toledo, and carried, the Report of the Committee on Resolutions as a whole was adopted.

ADDRESS OF JOHN T. MURPHY, TOLEDO

At this point, President Smith, with the consent of the House of Delegates, granted the privilege of the floor to John T. Murphy, Toledo, to discuss the activities and program of the National Physicians Committee for the Extension of Medical Service. Dr. Murphy described the set-up of this committee and the reasons for its organization. He urged members of the House of Delegates to return to their county medical societies and discuss the work of the committee with their colleagues, emphasizing the necessity for active and financial support by all members of the medical profession. In closing, he pointed out that the committee is ready to launch an educational campaign which, if successful, will prevent the federalization and regimentation of the medical profession. In order to reach this goal, Dr. Murphy pointed out that the committee must have the support of the medical profession throughout the country.

ELECTION OF PRESIDENT-ELECT

Nominations for the office of President-Elect were called for by President Smith. Barney J.

Hein, Toledo, presented the name of Harry V. Paryzek, Cleveland, a former member of The Council. On motion by D. W. Hogue, Springfield, seconded by O. P. Klotz, Findlay, and carried, the nominations were closed and the Secretary instructed to cast the unanimous ballot of the House of Delegates for Dr. Paryzek as President-Elect. So recorded and announced.

ELECTION OF COUNCILORS

Max M. Zinninger, Cincinnati, chairman of the Committee on Nominations, then submitted the report of that committee:

As Councilor of the First District, the committee presented the name of L. Howard Schriver, Cincinnati, to succeed himself. There being no further nominations, Dr. Schriver was re-elected for a term of two years.

As Councilor of the Third District, to succeed Dr. O. P. Klotz, who after many years of service on The Council expressed a desire to retire, the committee placed in nomination the name of Guy E. Noble, St. Marys. There being no further nominations Dr. Noble was elected for a term of two years.

E. P. McNamee, Cleveland, was nominated by the committee to succeed himself as Councilor of the Fifth District. There being no further nominations, Dr. McNamee was re-elected for a term of two years.

Carl Goehring, Steubenville, was nominated by the committee to succeed himself as Councilor of the Seventh District. There being no further nominations, Dr. Goehring was re-elected for a term of two years.

The committee placed in nomination the name of I. P. Seiler, Piketon, to succeed himself as Councilor of the Ninth District. The name of Gilbert R. Micklethwaite, Portsmouth, was placed in nomination by Geo. G. Hunter, Ironton, and seconded by Frank E. Miller, Curtice. At this point, Dr. Micklethwaite requested the privilege of the floor for the purpose of withdrawing his name. This privilege was granted and Dr. Micklethwaite withdrew his name. There being no further nominations, Dr. Seiler was re-elected Councilor of the Ninth District for a term of two years.

The name of S. V. Burley, Lorain, was placed in nomination for the office of Councilor of the Eleventh District. The name of Ross M. Knoble, Sandusky, was placed in nomination by Chas. T. Atkinson, Middletown. The House of Delegates then balloted, electing Dr. Burley as Councilor of the Eleventh District to succeed himself for a term of two years.

ELECTION OF A.M.A. DELEGATES AND ALTERNATES

On behalf of the Committee on Nominations, Dr. Zinninger then placed in nomination the following delegates and their respective alternates

to the American Medical Association for a term of two years:

Delegate—Ben R. McClellan, Xenia, to succeed himself; Alternate—G. A. Woodhouse, Pleasant Hill.

Delegate—E. R. Brush, Zanesville, to succeed himself; Alternate—Carl Goehring, Steubenville.

Delegate—Carl R. Steinke, Akron, to succeed himself; Alternate—C. C. Sherburne, Columbus, to succeed himself.

Delegate—John B. Alcorn, Columbus; Alternate—R. R. Hendershott, Tiffin.

There being no further nominations from the floor, the foregoing delegates and alternates were elected.

ELECTION OF TREASURER

The Nominating Committee placed in nomination the name of James A. Beer, Columbus, to succeed himself as treasurer for a term of three years. There being no nominations from the floor, Dr. Beer was re-elected treasurer.

INSTALLATION OF NEW PRESIDENT

President Smith, following an expression of appreciation to the House of Delegates, presented Wm. M. Skipp, Youngstown, the President-Elect, and duly installed him as President. Dr. Skipp, in accepting the official gavel from Dr. Smith, pledged himself to carry out the mandates of the House of Delegates to the best of his ability and requested the cooperation and assistance of all delegates, as well as all members of the Association.

APPOINTMENT OF COMMITTEES

As his first official act, President Skipp announced the appointment of the following committee members, which appointments, on motion of E. J. McCormick, Toledo, seconded by E. P. McNamee, Cleveland, and carried, were officially confirmed by the House of Delegates:

Committee on Public Relations and Economics—O. J. Walker, Youngstown, for a term of five years, and Barney J. Hein, Toledo, to serve the unexpired term of D. B. Lowe, Akron, resigned; Dr. Hein to serve as chairman of the committee for the ensuing year.

Committee on Education—J. L. Webb, Nelsonville, for a term of five years. Chairman for the ensuing year—Clyde L. Cummer, Cleveland.

Committee on Scientific Work—Earl W. Huffer, Toledo, for a term of five years. Chairman for the ensuing year—M. M. Zinninger, Cincinnati.

Judicial and Professional Relations Committee—Phillip T. Knies, Columbus, for a term of five years. Chairman for the ensuing year—James G. Kramer, Akron.

MISCELLANEOUS BUSINESS

On motion by D. J. Slosser, Defiance, seconded by Charles R. Meek, Lorain, and carried, the

House of Delegates expressed appreciation to the Cincinnati Academy of Medicine and its Committees; the Committee on Scientific Work; the Netherland Plaza Hotel; the Cincinnati newspapers and radio stations; and the Retiring President, Dr. Smith, for their activities and efforts in making the 1940 Annual Meeting one of the outstanding sessions in the history of the Association.

Following special announcements, the House of Delegates adjourned sine die.

Attest: CHARLES S. NELSON,
Executive Secretary.

House of Delegates Roll Call 94th Annual Meeting

County	Delegate	First Session	Second Session
Adams	Otto K. Engelke	present	present
Allen	J. R. Tillotson	present	present
Ashland	M. D. Shilling	present	present
Ashtabula	R. B. Wynkoop	present	present
Athens	B. R. Goldsberry	present	present
Auglaize	Guy E. Noble	present	present
Belmont	Harry G. Harris	present	present
Brown	Geo. P. Tyler, Jr.	present	present
Butler	Chas. T. Atkinson	present	present
Carroll	Carl A. Lincke	present	present
Champaign	D. C. Houser	present	present
Clark	C. E. M. Finney	present	present
Clermont	John A. Carter	present	present
"	J. M. Coleman	present	present
Clinton	Robert Conard	present	present
Columbiana	Paul H. Beaver	present	present
Coshocton	J. G. Smailes	present	present
Crawford	K. H. Barth	present	present
Cuyahoga	E. F. Kieger	present	present
"	Milton B. Cohen	present	present
"	Ralph M. Watkins	present	present
"	Donald M. Glover	present	present
"	Louis M. Starin	present	present
"	M. F. Oman	present	present
"	David A. Chambers	present	present
"	Russell L. Haden	present	present
"	E. J. Stefanic	present	present
"	Theo. M. Wille	present	present
"	Farrell T. Gallagher	present	present
"	Walter Engel	present	present
Darke	C. I. Stephen	present	present
Defiance	D. J. Slosser	present	present
Delaware	M. W. Davies	present	present
Erie	Ross M. Knoble	present	present
Fairfield	Ralph H. Smith	present	present
Fayette	J. H. Persinger	present	present
Franklin	John M. Thomas	present	present
"	George T. Harding	present	present
"	E. J. Emerick	present	present
"	I. B. Harris	present	present
"	John E. Brown, Jr.	present	present
"	Russel Means	present	present
Fulton	H. M. Clodfelter	present	present
Gallia	C. F. Murbach	present	present
Geauga	W. Lewis Brown	present	present
Greene	H. E. Shafer	present	present
Guernsey	H. C. Messenger	present	present
Hamilton	M. S. Lawrence	present	present
"	Ralph Carothers	present	present
"	E. O. Swartz	present	present
"	Howard D. Fabing	present	present
"	Henry B. Freiberg	present	present
"	Emil R. Sweptson	present	present
"	Wm. J. Topmoeller	present	present
"	Max M. Zinninger	present	present
"	David W. Heusinkveld	present	present
Hancock	Frank M. Wiseley	present	present
Hardin	Don R. Printz	present	present
Harrison	Dwight C. Pettay	present	present
Henry	J. J. Harrison	present	present
Highland	H. W. Chaney	present	present
Hocking	C. T. Grattidge	present	present
Holmes	Luther High	present	present
Huron	J. D. Bradish	present	present
Jackson	J. S. Hunter	present	present

County	Delegate	First Session	Second Session
Jefferson	S. J. Podlewski	present	present
Knox	F. C. Anderson	present	present
Lake	V. N. Marsh	present	present
Lawrence	Geo. G. Hunter	present	present
Licking	George A. Gressle	present	present
Logan	F. Blair Webster	present	present
Lorain	Charles R. Meek	present	present
"	Robert A. Stack	present	present
Lucas	E. B. Gillette	present	present
"	A. A. Brindley	present	present
"	T. H. Brown	present	present
"	E. G. Galbraith	present	present
Madison	W. A. Holman	present	present
Mahoning	Walter K. Stewart	present	present
"	Dean A. Nesbit	present	present
"	Gordon G. Nelson	present	present
Marion	Warren C. Sawyer	present	present
Medina	H. T. Pease	present	present
Meigs	Byron Bing	present	present
Mercer	Charles C. Henrie	present	present
Miami	G. A. Woodhouse	present	present
Monroe	A. R. Burkhardt	present	present
Montgomery	A. W. Carley	present	present
"	P. L. Yordy	present	present
"	C. J. Derby	present	present
"	H. V. Dutrow	present	present
Morgan	E. G. Rex	present	present
Morrow	Wm. Lowell Murphy	present	present
Muskingum	M. A. Loebell	present	present
Noble	Frank E. Miller	present	present
Ottawa	K. C. Evans	present	present
Paulding	Edgar D. Allen	present	present
Perry	Harry D. Jackson	present	present
Pickaway	Robert T. Leevers	present	present
Pike	Emily J. Widdecombe	present	present
Portage	Elizabeth A. Leggett	present	present
Preble	G. W. Flory	present	present
Putnam	J. R. Eichelbarger	present	present
Richland	John S. Hattery	present	present
Ross	O. P. Tatman	present	present
Sandusky	C. J. Wolf	present	present
Scioto	Dow Allard	present	present
Seneca	R. R. Hendershott	present	present
Shelby	R. E. Paul	present	present
Stark	John M. Van Dyke	present	present
"	George N. Wenger	present	present
"	A. R. Basinger	present	present
Summit	Robt. T. Allison, Jr.	present	present
"	Fowler B. Roberts	present	present
"	E. A. Freeman	present	present
Trumbull	J. D. Knox	present	present
Tuscarawas	J. W. Calhoon	present	present
Union	Harry G. Southard	present	present
Van Wert	J. R. Jarvis	present	present
Vinton	H. D. Chamberlain	present	present
Warren	A. E. Stout	present	present
"	N. A. Hamilton	present	present
Washington	Roy M. Meredith	present	present
Wayne	R. C. Paul	present	present
Williams	H. W. Wertz	present	present
Wood	Paul F. Orr	present	present
Wyandot	J. Craig Bowman	present	present

OFFICERS

President	Parke G. Smith	present	present
President-Elect	Wm. M. Skipp	present	present
Treasurer	James A. Beer	present	present
Past-President	Barney J. Hein	present	present

COUNCILORS

First District	L. Howard Schriver	present	present
Second District	D. W. Hogue	present	present
Third District	O. P. Klotz	present	present
Fourth District	E. J. McCormick	present	present
Fifth District	E. P. McNamee	present	present
Sixth District	R. L. Rutledge	present	present
Seventh District	Carl Goehring	present	present
Eighth District	George F. Swan	present	present
Ninth District	I. P. Seiler	present	present
Tenth District	C. C. Sherburne	present	present
Eleventh District	S. V. Burley	present	present

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Cincinnati—Recent developments in medical care for low-income groups was the general topic discussed at a forum of the Woman's City Club. Speakers included Dr. Samuel Iglauer and Dr. B. A. Dyer, medical officer of the Farm Security Administration.

New Attendance Record Set for Cincinnati at 1940 Annual Meeting; Registration Figures and Those Who Attended

ATTENDANCE at the Ninety-Fourth Annual Meeting of the Ohio State Medical Association at Cincinnati, May 14-16, exceeded all records for previous meetings of the Association in that city.

The registration of physicians was 1,226, including 1,126 members of the State Association, 26 out-of-state physicians, 62 interns and resident physicians and 12 teachers. Medical students who registered numbered 36. Technical exhibitors numbered 114. There were 169 women guests. Other guests totaled 44, including dentists, nurses, technicians, pharmacists and public health workers, making the total registration, 1,589. The previous largest registration for Annual Meetings at Cincinnati was 1,341 in 1922.

The following tabulations show the registration figures for the past 22 succeeding Annual Meetings and the number of members from each county who registered, compared to the number of members in the county on December 31, 1939, and May 12, 1940.

Annual Meeting Registration For 1919-1940 Inclusive

Year	Place	Members	Out-of-State Physicians	Guests	Technical Exhibitors	Total
1919	Columbus	1173	10	264	92	1529
1920	Toledo	810	17	105	80	1062
1921	Columbus	1275	28	204	96	1503
1922	Cincinnati	1066	21	184	70	1341
1923	Dayton	1117	19	202	76	1414
1924	Cleveland	1301	13	180	109	1603
1925	Columbus	1204	17	361	107	1689
1926	Toledo	903	19	120	83	1125
1927	Columbus	1320	17	286	82	1705
1928	Cincinnati	916	27	92	80	1116
1929	Cleveland	1231	15	249	124	1619
1930	Columbus	1241	13	435	86	1775
1931	Toledo	826	13	198	50	1087
1932	Dayton	978	2	201	45	1226
1933	Akron	858	6	160	25	1049
1934	Columbus	1069	9	410	51	1539
1935	Cincinnati	973	17	197	84	1271
1936	Cleveland	1099	14	563	137	1813
1937	Dayton	1103	18	366	64	1551
1938	Columbus	1330	15	619	104	2068
1939	Toledo	1056	15	271	84	1426
1940	Cincinnati	1126	26	323	114	1589

Registration, 1940 Annual Meeting, By Counties, and Membership Data

County	Membership		No. of Members Registered at 1940 Annual Meeting
	Dec. 31, 1939	May 12, 1940	
Adams	19	17	5
Allen	73	74	18
Ashland	25	27	4
Ashtabula	46	49	2
Athens	39	36	6
Auglaize	26	28	8
Belmont	53	53	2
Brown	6	6	2
Butler	95	90	24
Carroll	11	11	1

County	Membership		No. of Members Registered at 1940 Annual Meeting
	Dec. 31, 1939	May 12, 1940	
Champaign	21	18	4
Clark	80	80	19
Clermont	23	24	8
Clinton	24	23	7
Columbiana	66	63	2
Coshocton	22	23	3
Crawford	30	33	1
Cuyahoga	1177	1143	74
Darke	34	30	4
Defiance	18	15	1
Delaware	23	21	4
Erie	39	40	6
Fairfield	38	33	3
Fayette	17	18	4
Franklin	516	512	90
Fulton	20	16	0
Gallia	22	21	3
Geauga	11	11	1
Greene	35	35	11
Guernsey	27	25	5
Hamilton	784	737	395
Hancock	45	48	6
Hardin	24	24	2
Harrison	14	12	1
Henry	19	17	1
Highland	24	23	11
Hocking	15	13	1
Holmes	9	7	3
Huron	21	24	1
Jackson	14	12	2
Jefferson	65	66	2
Knox	30	31	4
Lake	31	31	0
Lawrence	24	27	3
Licking	54	52	9
Logan	25	25	5
Lorain	102	106	6
Lucas	362	317	43
Madison	14	16	3
Mahoning	224	217	33
Marion	46	46	9
Medina	31	30	5
Meigs	14	9	0
Mercer	15	18	2
Miami	53	48	15
Monroe	5	5	0
Montgomery	330	313	81
Morgan	11	11	1
Morrow	11	9	2
Muskingum	60	56	12
Ottawa	17	17	3
Paulding	14	14	1
Perry	20	19	1
Pickaway	17	15	0
Pike	8	8	2
Portage	30	26	3
Preble	18	14	7
Putnam	26	22	3
Richland	76	77	5
Ross	39	42	15
Sandusky	36	37	1
Scioto	70	64	11
Seneca	41	32	1
Shelby	21	21	3
Stark	215	208	29
Summit	310	291	19
Trumbull	61	71	3
Tuscarawas	52	52	4
Union	21	17	6
Van West	21	24	5
Vinton	3	3	2
Warren	18	19	6
Washington	37	30	5
Wayne	41	40	5
Williams	20	19	1
Wood	37	39	3
Wyandot	10	9	2
Totals	6388	6155	1126

Names of Members Registered

The list of members registered by counties follows:

Adams—R. B. Ellison, S. J. Ellison, Otto K. Engelke, Hazel Sproull, O. T. Sproull. Allen—A.

M. Adams, Conrad Baker, W. C. Lacock, John LoCricchio, Harold A. Lotzoff, J. M. McBride, Walter A. Noble, W. V. Parent, Karl F. Ritter, O. S. Robuck, David L. Steiner, O. S. Steiner, H. L. Stelzer, Paul J. Stueber, J. E. Talbott, R. L. Tecklenberg, H. A. Thomas, J. R. Tillotson. Ashland—Geo. M. Emery, P. E. Kellogg, M. D. Shilling, R. L. Shilling. Ashtabula—D. D. Forward, R. B. Wynkoop.

Athens—George N. Burger, Blaine R. Goldsberry, C. R. Hoskins, C. N. Sanders, John R. Sprague, J. L. Webb. Auglaize—Chas. C. Berlin, Roy C. Hunter, Elizabeth Y. Kuffner, Guy E. Noble, Harry S. Noble, N. Vernon Noble, J. H. Schaeffer, I. E. Williams. Belmont—Harry G. Harris, L. L. Liggett. Brown—J. W. Kautz, Frank L. Salisbury. Butler—C. T. Atkinson, E. O. Bauer, Fred Brosius, Lee H. Brown, H. L. Burdsall, E. Norwood Clark, Merle Flenner, Mildred W. Gardiner, Mabel E. Gardner, Wilmer E. Griffith, R. B. Hannah, Wm. H. Henry.

Ross A. Hill, Vera Coombs Iber, Edward T. Keating, Mark Millikin, Neil Millikin, E. McCall Morris, H. S. Murat, W. H. Roehll, Louis H. Skimming, E. T. Storer, Harry N. Ward, W. H. Williams. Carroll—Carl A. Lincke. Champaign—A. F. Hawk, D. C. Houser, F. E. Lowry, L. A. Woodburn. Clark—F. P. Anzinger, F. Wm. Anzinger, E. R. Brubaker, J. E. Burgman, M. S. Collins, A. W. Detrick, C. E. M. Finney, J. R. Gersack, F. A. Halloran, F. A. Hartley, Roger C. Henderson, D. W. Hogue, J. A. Link, Carl D. Marsh, Louis H. Mendelson, Alfred H. Potter, Wm. B. Quinn, Carl H. Reuter, Will Ultes.

Clermont—C. F. Barber, J. A. Carter, J. M. Coleman, F. H. Lever, Allan B. Rapp, F. S. Skeen, Trent W. Smith, Warren E. Thomas. Clinton—Robert Conrad, Kelley Hale, V. E. Hutchens, C. E. Kinzel, E. Dalton Peele, Elizabeth Shrieves, William L. Wead. Columbiana—Paul H. Beaver, John A. Fraser. Coshocton—G. A. Foster, J. D. Lower, J. G. Smailes. Crawford—E. C. Brandt.

Cleveland and Cuyahoga County—Harold J. Abrams, A. C. J. Brickel, Abram B. Bruner, Mr. H. Van Y. Caldwell, David A. Chambers, Milton B. Cohen, E. P. Coppedge, William Francis Creardon, Clyde L. Cummer, Howard Ditttrick, Fred Dixon, Ellery P. Edwards, I. H. Einsel, Thos. H. Einsel, Chas. W. Emmons, Walter A. Engel, C. W. Engler, Ralph J. Frackelton, Eugene Freedman, Farrell T. Gallagher, Stanley Gardner, Wm. P. Garver, Frank S. Gibson, D. M. Glover, Joe I. Goodman, C. Lee Graber, Russell L. Haden, H. R. Hathaway, I. M. Hinnant, E. J. Humel.

Lorand V. Johnson, Thomas E. Jones, E. F. Kieger, Chas. E. Kinney, Harold J. Knapp, M. Murray Lawton, J. Henry Lazzari, Benjamin Levine, W. H. McGaw, E. P. McNamee, E. A. Marshall, John W. Martin, Paul G. Moore, M. Paul Motto, Benjamin Nozik, Michael F. Oman, Harry V. Paryzek, H. D. Piercy, L. A. Pomeroy, U. V. Portmann, John E. Rauschkolb, Joseph M. Rossen, A. D. Ruedemann, Scott C. Runnels, George L. Sackett, R. W. Scott, Wm. Eggers Smith, Richard E. Stout, Louis M. Starin, Albert T. Steegmann, Edward J. Stefanic, Geo. F. Sykes.

J. Warrick Thomas, John A. Toomey, J. E. Tuckerman, R. M. Watkins, Myron A. Weitz, R. J. Whitacre, Theodore M. Wille, Guy H. Williams, Jr., S. E. Wolpaw, James N. Wychel, Walter J. Zeiter, Carl E. Zeithaml. Darke—W. S. Bishop, Paul G. Lenhert, L. N. Shroder, C. I. Stephen. Defiance—D. J. Slosser. Delaware—W. E. Borden, A. R. Callander, G. Frederick Moench, James G. Parker. Erie—A. R. Grierson, V. A. Killoran,

Ross M. Knoble, E. J. Meckstroth, H. L. Sowash, Paul N. Squire. Fairfield—M. E. Nichols, R. H. Smith, W. E. Wiyarch. Fayette—J. H. Persinger, A. S. Stemler, K. R. Teachnor, James F. Wilson.

Columbus and Franklin County—A. A. Ahn, Marion L. Ainsworth, John B. Alcorn, D. J. Alspaugh, B. F. Barney, J. F. Bateman, E. H. Baxter, James A. Beer, L. L. Bigelow, G. H. Bonnell, Donald F. Bowers, Grace Nunemaker Brown, John E. Brown, Jr., E. H. Chapin, P. C. Clark, H. M. Clodfelter, J. J. Coons, Dana W. Cox, Andre Crotti, George Curtis, Francis W. Davis, C. J. DeLor, Chas. A. Doan, Verne A. Dodd, Dorothy E. Donley, Leonard M. Dub, A. Henry Dunn, S. D. Edelman, R. K. Edler, E. J. Emerick, H. D. Emswiler, R. S. Fidler, T. R. Fletcher.

Jonathan Forman, Huston F. Fulton, H. D. Giles, Walter H. Hamilton, F. C. Haney, George T. Harding, F. W. Harrah, E. W. Harris, I. B. Harris, Arthur M. Hauer, Arthur T. Hopwood, Ben C. Houghton, W. D. Inglis, G. W. Keil, R. A. Kidd, Jr., Gilman D. Kirk, Robert C. Kirk, Herman W. Koerper, H. E. LeFever, Sidney McCurdy, Chas. W. McGavran, Louis Mark, R. H. Markwith, Mr. Stanley R. Mauck, John W. Means, Russel G. Means, Nicholas Michael, H. R. Mitchell, Link M. Murphy, Robt. D. Myers, W. E. Obetz, Anton Oelgoetz, Chas. W. Pavey, H. M. Platter, R. G. Plummer.

Joseph Price, R. E. Ramey, R. A. Ramsey, H. L. Reinhart, Frank Riebel, Roy J. Secrest, Joseph H. Shepard, C. C. Sherburne, C. C. Shinbach, Kenneth D. Smith, C. H. Solomonides, E. J. Stedem, Wm. A. Stoutenborough, Francis W. Thomas, John M. Thomas, E. A. Thrall, J. H. J. Upham, J. W. Wilce, Edward Harlan Wilson, B. K. Wiseman, J. M. Wittenbrook, C. H. Wyker. Gallia—George G. Kineon, W. H. Matuska, Homer B. Thomas. Geauga—H. E. Shafer.

Greene—Paul D. Espey, W. M. Hartinger, Donald F. Kyle, Ben R. McClellan, Reyburn McClellan, C. G. McPherson, W. C. Marshall, H. C. Messenger, T. F. Myler, Gordon E. Savage, David Taylor. Guernsey—W. L. Denny, M. S. Lawrence, J. E. Patton, George F. Swan, Henry L. Wells.

Cincinnati and Hamilton County—Martin Abraham, Ira A. Abrahamson, Nathan R. Abrams, Glenn Adams, M. M. Adams, Edward Alberts, Floyd P. Allen, M. M. Applegate, Mary Knight Asbury, DeWitt G. Astler, Richard S. Austin, E. A. Baber, E. R. Bader, Lynne E. Baker, Taylor W. Barker, Ferris E. Beekley, Albert J. Bell, Joseph J. Bell, J. E. Benjamin, Oscar Berghausen, Charles W. Beaman, Ruth G. Bernheim, Arthur S. Beyer, Geo. C. Bishop, M. A. Blankenhorn, Louis de M. Blocker, Joseph Bolin, Lester J. Bosser, F. J. Boyd.

Byron E. Boyer, D. J. Bradley, Albert L. Brown, Mark A. Brown, Samuel Brown, Susan W. Brown, Walter J. Brown, Richard D. Bryant, Leslie M. Buckner, Earl R. Bush, John A. Caldwell, J. S. Caldwell, Elizabeth Campbell, A. G. Carmel, Ralph G. Carothers, Robert Carothers, B. N. Carter, G. H. Castle, Sherwood A. Chamberlain, William R. Chambers, Asher T. Childers, Wm. C. Clark, H. L. Claassen, J. T. Clear, Robert B. Cofield, Wm. C. Compton, J. A. Conner, Louis E. Cook, H. F. Conwell, Wm. H. Craddock, Nelson R. Cragg, John F. Cronin.

Nora Crotty, R. L. Crudgington, A. Harry Crum, Frank E. Cunningham, John C. Danahy, Geo. E. Dash, S. Bertha Dauch, Daniel J. Davies,

Giles DeCourcy, Joseph L. DeCourcy, C. Ross Deeds, D. M. Denman, E. A. Dickson, Wm. M. Doughty, R. R. DuCasse, Clyde Dummer, Kennon Dunham, Daniel E. Earley, E. C. Elsey, E. W. Enz, Joseph P. Evans, Howard D. Fabing, Carroll J. Fairro, John H. Falk, August F. Fath, Eugene B. Ferris, Frank F. Ferris, Ruth C. Ferris, Earl V. Ferguson, W. B. Fessenden, A. Fine, Nancy E. Finney, William M. Fischbach, John A. Fisher.

Nathan Flax, John G. Fleming, A. W. Foertmeyer, E. I. Fogel, Starr Ford, Laurence O. Fasoldt, Lee Foshay, N. I. Fraid, Albert H. Freiberg, Henry B. Freiberg, Joseph A. Freiberg, Edward Friedman, Harry L. Fry, Louis M. Gaker, Mitchell N. Ganim, Joseph N. Ganim, Stanley T. Garber, Wm. M. German, Nicholas J. Giannestras, Elizabeth B. Gillespie, Thad. R. Gillespie, Wm. P. Gillespie, Helen I. Glueck, Alfred M. Glazer, Lawrence C. Goldberg, Samuel Goldblatt, Douglas Goldman, Leon Goldman, Harry Goldstein, Ralph Wm. Good, Henry M. Goodyear, William J. Graf, David L. Graller, J. Victor Greenebaum.

Walter R. Griess, Paul D. Grove, Louis Guberman, Albert L. Haas, Kenneth B. Hanson, Morton Hamburger, Paul V. Hamilton, W. Selden Hamilton, Clarence Hans, Glen A. Hattendorf, F. K. Harder, Chas. P. Harris, Samuel Harris, Ralph E. Hatfield, C. E. Hauser, Joseph D. Heiman, Charles D. Heisel, Anthony B. Hendricks, Wm. C. Herman, Louis G. Herrmann, Jack Hertzman, Mortimer Herzberg, D. W. Heusinkveld, H. G. Higginbotham, Maude Ruhl Hill, Carl R. Hiller, J. Hofbauer, Charles A. Hofling, George H. Holt, Chas. E. Howard.

Robert E. Howard, Benjamin Hoyer, John H. Hunt, Morris Hyman, Samuel Iglauer, Charles E. Iliif, M. J. Inskip, Philip Jaeger, James J. Jennie, W. P. Jennings, D. A. Johnston, Robert Lee Johnston, Daniel V. Jones, Joseph Katz, Wm. S. Kautz, Lee Keidel, Ralph J. Kessler, Charles E. Kiely, Roy L. Kile, J. Harold King, Edwin Khuon, D. J. Kindel, E. A. Kindel, Arthur G. King, Edward King, V. R. Kitsmiller, Bela Klein, W. W. Klement, Carl A. Koch, M. C. Labermeier, Charles A. Langdale, Harry Lapirow, L. E. Larrick, Harry Landt.

Joseph C. LaVallee, H. Jerry Lavender, Joseph W. Lawrence, J. Arthur Leary, Harry O. Lepsky, A. J. Light, Davis Lillard, Joseph Lindner, Hans Lion, W. H. Lippert, J. J. Longacre, Louis A. Lurie, Alfred Lustberg, George Lyford, Donald J. Lyle, Robert A. Lyon, John F. Lyons, Helen E. Mabon, Willard Machle, Robert D. Maddox, John J. Maloney, John D. Marioni, Morris Mark, R. R. Marnell, Raymond Marr, Esther C. Marting, Frank H. Mayfield, H. G. McCandless, Justin E. McCarthy, Geo. W. McClure, Charles J. McDevitt, Lester McDevitt, J. V. McGowan.

G. F. McKim, J. S. McMath, Sidney N. Mendelsohn, Geo. A. Meyers, H. J. Meyers, Marie Miller, Ralph H. Miller, James F. Mills, J. S. Mills, E. W. Mitchell, Wm. Mithoefer, Charles H. Moore, P. K. Morse, Chas. A. Neal, Byron H. Nellans, A. W. Nelson, Harry G. Nelson, B. Newburger, J. R. Nielander, E. H. Niesen, Charles S. Noonan, Emerson A. North, Vera Norton, Carl J. Ochs, Symmes F. Oliver, Dale P. Osborn, Louis B. Owens, F. M. Oxley, Dudley W. Palmer, Evalyn M. Partymiller, George F. Patterson, W. O. Pauli.

C. T. Perin, Robert Perlman, Walter B. Phillips, Philip Piker, Philip F. Pogue, Samuel H. Portnoy, Alice M. Posey, C. W. Pottschmidt, R. E. Raitz, W. O. Ramey, Thomas J. Rankin, J. L. Ransohoff, T. A. Ratliff, Helena T. Ratterman, Louise W. Rauh, Wm. Ravine, Horace W. Reid, Mont R.

Reid, H. G. Reineke, Andrew C. Renz, Dewey H. Reys, Arlington F. Rewwer, Leo H. Riesenbeck, Robert J. Ritterhoff, C. R. Rittershofer, Wm. H. Rohdenburg, V. Bradley Roberts, Samuel S. Rockwern, J. Edward Rogers, Henry F. Rohs, Clyde S. Roof.

A. C. Ross, Ervin S. Ross, Robert C. Rothenberg, Carl E. Roush, James M. Rueggesser, Bernard Safer, Louis A. Safer, Barnet R. Sakler, Moses Salzer, N. L. Saltzman, E. A. Schlueter, Leon Schiff, E. H. Schoenling, L. Howard Schriver, Irving H. Schroth, A. L. Schwartz, Bernard Schwartz, C. A. Sebastian, Otto Seibert, Frank Seinsheimer, Theodore K. Selkirk, Samuel Seltz, R. G. Senour, Reed A. Shank, I. C. Sharon, C. E. Shinkle, H. H. Shook, Chas. M. Siegel, Emanuel Silberstein, John H. Skavlem, Robert E. Slemmer, H. H. Slutz.

Parke G. Smith, Samuel H. Smith, E. B. Snyder, Louis Sommer, A. Sonneman, Dora F. Sonnenaday, H. A. Springer, John B. Squires, J. C. Staats, M. F. Steele, Henry Stanbery, J. R. Stark, E. C. Steinharter, John E. Stemler, Richard J. Stevens, E. V. Stewart, Thomas M. Stewart, Howard L. Stitt, Ervin Strachley, Sr., Cecil Striker, M. Strikman, W. L. Strohmer, James C. Strong, Jr., Paul W. Sutton, E. O. Swartz, Emil R. Swepston, Frank U. Swing, Mr. R. A. Swink, H. F. Tangeman, Robert J. Tapke, Elmore B. Tauber, Leon G. Tedesche.

W. S. Terwilleger, W. A. Teveluwe, Frederick C. Theiss, Clyde S. Thomas, Esther Bogen Tietz, George B. Topmoeller, Wm. J. Topmoeller, David A. Tucker, Jr., Derrick Vail, R. A. Van Voast, W. H. Ventress, T. H. Vinke, James E. Vollmer, Edward A. Wagner, Millard Wallenstein, B. M. Warne, T. Brent Wayman, Joseph Weil, Richard W. Weiser, H. B. Weiss, Arthur W. Wendel, Theodore H. Wenning, Elmer Werner, Wm. Wertheim, Charlotte Wiedmer, Abbott Y. Wilcox, Jr., Harold Meade Wiley, Foster M. Williams, G. T. Willke.

Cloyce Wilson, Carl A. Wilzbach, C. E. Wooding, Henry L. Woodward, Jackson Wright, Jerome Zeigler, Wendel Zeligs, Meyer A. Zeligs, Samuel Zielonka, Max M. Zininger, R. M. Zodikoff, Albert L. Zoss, Karl G. Zwick. **Hancock**—H. O. Crosby, H. E. Fruth, John V. Hartman, O. P. Klotz, R. S. Rilling, Frank M. Wiseley. **Hardin**—H. E. Gibson, Don R. Printz. **Harrison**—E. L. Miller. **Henry**—B. L. Johnson. **Highland**—John G. Anderson, H. W. Chaney, C. C. Cropper, Walter Felson, Clifford G. Foor, J. H. Frame, J. B. Glenn, W. M. Hoyt, H. H. Lowe, W. B. Roads, G. Howard Wood.

Hocking—J. S. Cherrington. **Holmes**—A. J. Earney, Luther High, N. P. Stauffer. **Huron**—R. C. Gill. **Jackson**—J. L. Frazer, J. S. Hunter. **Jefferson**—Carl Goehring, S. J. Podlewski. **Knox**—F. C. Anderson, Charles S. Baldwin, Robert L. Eastman, Julius Shamansky. **Lawrence**—George G. Hunter, V. V. Smith, F. R. Stewart. **Licking**—Geraldine H. Crocker, John N. Cross, George A. Gressle, Robert C. Haubrich, R. C. Mauger, J. Fleek Miller, Ralph E. Pickett, Dale E. Roth, Donald R. Sperry. **Logan**—W. H. Carey, Lee E. Traul, J. P. Harbert, Frederick W. Kaylor, Ben S. Leonard. **Lorain**—Valloyd Adair, S. V. Burley, Ernest B. Mainzer, Chas. R. Meek, R. A. Stack, Walter W. Tilock.

Toledo and Lucas County—W. A. Baird, R. J. Borer, A. A. Brindley, P. Bruce Brockway, Thos. H. Brown, Burt G. Chollett, F. W. Clement, Arthur E. Cone, Mr. George W. Cooley, Fred M.

Douglass, Karl D. Figley, Evan G. Galbraith, John Gardiner, Stanley D. Giffen, E. B. Gillette, Norris W. Gillette, Murray E. Goodrich, W. W. Green, Barney J. Hein, John F. Hillabrand, E. W. Huffer, C. E. Hufford.

Rollin Kuebbeler, A. J. Kuehn, W. L. Lathrop, L. A. Levison, Chas. Lukens, K. C. McCarthy, E. J. McCormick, W. H. Meffley, Lawrence D. Miller, John T. Murphy, F. N. Nagel, Leonard Nippe, C. A. Phillips, Richard V. Schneider, Maurice A. Schnitker, Max T. Schnitker, John Schrider, John L. Stifel, Dudley M. Stewart, W. C. Suter, R. C. Young. Madison — W. A. Holman, Francis R. Neff, H. D. Wright.

Mahoning—J. A. Altdoerffer, W. K. Allsop, E. C. Baker, G. E. DeCicco, Armin Elsaesser, W. H. Evans, Paul J. Fuzy, Joseph C. Hall, J. P. Harvey, Wm. F. Hatcher, S. J. Klatman, Geo. M. McKelvey, R. H. Middleton, D. E. Montgomery, R. R. Morrall, Gordon G. Nelson, Dean Nesbit, John Noll, Claude B. Norris, R. B. Poling, Edward J. Reilly, John A. Rogers, Clarence W. Sears, Wm. M. Skipp, Ivan C. Smith, Walter K. Stewart, E. R. Thomas, Walter J. Tims, C. C. Wales, O. J. Walker, Wm. A. Welsh, E. J. Wenaas, Samuel R. Zoss.

Marion—Clovis J. Altmaier, C. L. Baker, D. W. Brickley, Jr., R. L. Gettman, H. K. Mouser, B. D. Osborn, Warren C. Sawyer, C. G. Smith, A. A. Starner. Medina—Maurice C. Archer, R. Graham Johnston, John L. Jones, H. T. Pease, Frank C. Reutter. Mercer—G. I. Scheetz, W. C. Scheidt. Miami—Charles Baker, John F. Beachler, Paul E. Foy, G. J. Hance, Fred B. Hapke, Berton M. Hogle, E. R. Irvin, Kenneth F. Lowry, Ernest T. Pearson, E. G. Puterbaugh, Wm. W. Trostel, Hugh Wellmeier, G. A. Woodhouse, E. A. Yates, R. D. Yates.

Dayton and Montgomery County—S. H. Ashmun, Robert C. Austin, R. K. Bartholomew, D. L. Bernie, Roy S. Binkley, Norman J. Birkbeck, A. Vincent Black, A. B. Brower, Herbert L. Brumbaugh, C. E. Burgett, H. W. Burnett, A. W. Carley, Abe Cline, A. D. Cook, R. F. Corwin, M. E. Coy, F. D. Crowl, A. M. Culler, Robert J. Deger, C. J. Derby, R. Dean Dooley, H. V. Dutrow, Eleanor S. Everhard, A. G. Farmer, Gertrude Felker, Robert H. Firth, E. C. Fischbein, John D. Fouts, Gerald C. Grout, H. C. Hanning, J. Edward Hershberger, J. K. Hoerner, E. L. Hooper, L. B. Hurless, H. R. Huston, Miss Mildred E. Jeffrey, R. L. Johnston, Lynn M. Jones.

Louis B. Katz, H. W. Kendell, P. H. Kilbourne, Joseph S. Koehler, Albert F. Kuhl, A. Kuhr, Kenneth Kurtz, Harry W. Lautenschlager, Raymond A. Lewis, A. P. McDonald, John T. McGreer, S. N. Maimon, J. Grant Marthens, T. E. Newell, Benedict Olch, H. H. Pansing, R. A. Pfarrer, Lydia L. Poage, W. S. Powell, Jos. H. Prince, M. D. Prugh, R. E. Pumpfrey, Wilbur A. Ricketts, F. C. Rounds, James Sagebiel, R. C. Schneble, L. E. Seyler, Walter M. Simpson, Clement D. Smith, E. McCall Smith, E. Wallace Smith, Henry Snow, J. D. Spaid, Harvey J. Staton, H. R. Stockwell, B. F. Suffron, W. B. Taggart, E. R. Thomas, R. E. Tyvand, James Walker, W. Burnett Weaver, Sherl J. Winter, Giles Wolverton, Paul L. Yordy.

Morgan—E. Galen Rex. Morrow—Lowell Murphy, E. C. Sherman. Muskingum—Edmund R. Brush, S. P. Carter, Ward D. Coffman, W. B. Devine, Beatrice T. Hagen, M. A. Loebell, Robert S. Martin, Geo. C. Malley, James E. McCormick, A. C. Ormond, Fred W. Phillips, C. F. Sisk.

Ottawa—F. E. Miller, E. D. Schuiteman, C. J. Yeisley. Paulding—Fred E. Spragens. Perry—Edgar D. Allen. Pike—W. L. McCaleb, I. P. Seiler. Portage—E. M. Kauffman, Elizabeth Leggett, Emily J. Widdcombe. Preble—Carle W. Beane, C. J. Brian, J. W. Coombs, G. W. Flory, Chas. E. Mumma, James I. Nisbet, E. P. Trittschuh.

Putnam—J. R. Echelbarger, W. B. Light, Milo B. Rice. Richland—Carl R. Damron, R. V. Myers, L. C. Nigh, O. H. Schettler, D. R. Talbott. Ross—Edwin H. Artman, R. C. Bane, H. R. Brown, Geo. W. Cooper, Richard L. Counts, Harold Crumley, Elmer D. Engelman, Ralph W. Holmes, O. L. Iden, A. E. Merkle, Geo. Mytinger, David A. Perrin, M. D. Scholl, W. B. Smith, O. P. Tatman. Sandusky—Chester G. Egger. Scioto—Dow Allard, C. L. Ferguson, Bernard U. Howland, J. W. Hutchens, Geo. Fred Jones, W. C. McCann, Gilbert Micklethwaite, Oscar R. Micklethwait, W. D. Micklethwait, Marvin P. Moore, Wm. E. Scaggs.

Seneca — R. R. Hendershott. Shelby — A. B. Gudenkauf, K. G. Hawver, L. F. Zacharias. Stark—A. R. Basinger, H. W. Beck, J. R. Brandon, C. N. Clark, Wm. R. Ferraro, C. E. Fraunfelder, Ian B. Hamilton, Scott Hill, Geo. L. King, Clair B. King, Fred G. King, Charles A. LaMont, L. E. Leavenworth, K. L. Lehmler, A. W. McConkey, J. Edwin Purdy, R. K. Ramsayer, R. L. Rutledge, C. J. Schirack, L. M. Snively, G. O. Thompson, John M. VanDyke, A. W. Warren, Geo. M. Wenger, Mae E. White, Wm. A. White, J. S. Williams, Geo. F. Zininger, Pauline Zininger.

Summit—Robt. T. Allison, Jr., D. C. Brennan, L. E. Brown, Sr., M. B. Crafts, P. C. Doran, LeRoy C. Eberhard, Edson A. Freeman, W. L. Hogue, Jr., Walter A. Hoyt, A. J. Keeley, D. B. Lowe, C. T. McCormish, Fowler B. Roberts, E. R. Shaffer, Hazel P. Simms, J. E. Springer, Carl R. Steinke, Edw. L. Voke, C. F. Wharton. Trumbull—P. J. Fusco, D. A. Gross, John D. Knox. Tuscarawas—David H. Allen, Jay W. Calhoon, W. W. H. Curtiss, D. H. Downey.

Union—John D. Boylan, Fred Callaway, P. D. Longbrake, E. J. Marsh, James M. Snider, H. G. Southard. Van Wert—S. A. Edwards, James R. Jarvis, F. A. McCammon, J. B. Sampsell, R. E. Shell. Vinton—H. D. Chamberlain, B. F. Wills. Warren—James H. Arnold, Edward Blair, C. J. Haarlammert, N. A. Hamilton, Leonard Mounts, Alfred E. Stout. Washington—F. E. Eddy, G. E. Huston, M. S. Muskat, W. W. Sauer, A. Howard Smith. Wayne—F. C. Ganyard, R. C. Paul, A. C. Smith, M. E. Stilwill, John J. Sutter.

Williams—H. W. Wertz. Wood—Paul F. Orr, H. J. Powell, D. B. Spitler. Wyandot — R. L. Garster, C. B. Schoolfield.

Licensed Through Reciprocity

The following physicians have been granted licenses to practice medicine and surgery in Ohio by the State Medical Board, through reciprocity with other states: Dr. Elgie K. Johnson, Columbus, University of Nebraska; Dr. Roland A. Reich, Dayton, St. Louis University; Dr. Merrill F. Steele, Cincinnati, Indiana University; Dr. Edward C. Coppola, Youngstown, Long Island College of Medicine.

Officers, Councilors, Committeemen and A.M.A. Delegates of the State Association for the Year, 1940-41

AS a result of action by the House of Delegates at the recent Annual Meeting at Cincinnati, the following officers, councilors, members of regular committees and delegates and alternates to the A.M.A. will serve the State Association during the ensuing year. Personnel of various sub-committees will be selected at the mid-Summer meeting of The Council:

OFFICERS

President.....	Wm. M. Skipp, Youngstown.
President-Elect.....	H. V. Paryzek, Cleveland.
Past-President.....	Parke G. Smith, Cincinnati.
Treasurer.....	James A. Beer, Columbus.

DISTRICT COUNCILORS

First District.....	L. Howard Schriver, Cincinnati.
Second District.....	D. W. Hogue, Springfield.
Third District.....	Guy E. Noble, St. Marys.
Fourth District.....	E. J. McCormick, Toledo.
Fifth District.....	Edgar P. McNamee, Cleveland.
Sixth District.....	R. L. Rutledge, Alliance.
Seventh District.....	Carl Goehring, Steubenville.
Eighth District.....	George F. Swan, Cambridge.
Ninth District.....	I. P. Seiler, Piketon.
Tenth District.....	C. C. Sherburne, Columbus.
Eleventh District.....	S. V. Burley, Lorain.

A.M.A. DELEGATES

Barney J. Hein, Toledo.
C. E. Kiely, Cincinnati.
Claude B. Norris, Youngstown.
Ben R. McClellan, Xenia.
E. R. Brush, Zanesville.
Carl R. Steinke, Akron.
John B. Alcorn, Columbus.

A.M.A. ALTERNATES

Charles R. Meek, Lorain.
E. O. Swartz, Cincinnati.
Dow Allard, Portsmouth.
G. A. Woodhouse, Pleasant Hill.
Carl Goehring, Steubenville.
C. C. Sherburne, Columbus.
R. R. Hendershott, Tiffin.

STANDING COMMITTEES

Committee on Public Relations and Economics: Barney J. Hein, Toledo, chairman; O. J. Walker, Youngstown; E. O. Swartz, Cincinnati; Ralph M. Watkins, Cleveland; H. M. Platter, Columbus.

Committee on Education: Clyde L. Cummer, Cleveland, chairman; J. L. Webb, Nelsonville; S. H. Ashmun, Dayton; Carl A. Wilzbach, Cincinnati; Russel G. Means, Columbus.

Committee on Scientific Work: M. M. Zinninger, Cincinnati, chairman; Earl W. Huffer, Toledo; Fred W. Dixon, Cleveland; Claude B. Norris, Youngstown; Albert F. Kuhl, Dayton.

Judicial and Professional Relations Committee: James G. Kramer, Akron, chairman; Phillip T. Knies, Columbus; Howard D. Fabing, Cincinnati; J. E. Tuckerman, Cleveland; G. A. Woodhouse, Pleasant Hill.

Proceedings of The Council

Important Business Transacted at Two Meetings Held During the 94th Annual Meeting of the State Association, May 14-16, at Cincinnati

A REGULAR meeting of The Council, Ohio State Medical Association, was held in Cincinnati, May 13, 1940, on the eve of the opening of the 94th Annual Meeting of the Association. The meeting was preceded by a dinner at the Netherland Plaza Hotel for officers, councilors, members of standing committees, delegates to the American Medical Association, and representatives of the Cincinnati committees on arrangements. All officers and councilors of the Association were present.

After approval of the minutes of the February 18, 1940, meeting of The Council, as published in the March, 1940, issue of *The Journal*, on motion by Dr. Beer, seconded by Dr. Klotz and carried, membership statistics were reported by the Executive Secretary as follows: Membership as of May 13, 1940, 6,155 compared to 6,039 on May 13, 1939, and to 6,388 as of December 31, 1939.

Reports by members of The Council regarding their respective districts were followed by special announcements regarding the Annual Meeting scheduled to open on the following day.

TWO RESOLUTIONS APPROVED

A report from the Committee on Public Relations and Economics, recommending that the State Association should not sponsor legislation to provide for the reimbursement of physicians for the care of indigents injured in motor vehicle accidents from highway funds, was presented. Following a general discussion, on motion by Dr. Schriver, seconded by Dr. Sherburne and carried, The Council approved the report and recommended that a resolution containing the same recommendation should be presented by The Council to the House of Delegates.

A report from the Committee on Public Relations and Economics recommending that the Association sponsor an enabling act to permit the organization of medical service plans by the medical profession for the distribution of medical care to those of low-income groups on a voluntary prepayment basis was presented by Dr. Lowe, chairman of the committee. This recommendation originated in the Committee on Medical Service Plans and, after consideration by the Committee on Public Relations and Economics, was approved by that committee. Following a general discussion, on motion by Dr. McCormick, seconded by Dr. Seiler and carried, The Council approved the report and recommendation, and

authorized the presentation of the recommendation in resolution form to the House of Delegates.

ACTION ON F.S.A. QUESTIONS

Dr. Lowe, chairman of the Committee on Public Relations and Economics, submitted reports on the following questions:

Consideration of a letter from Dr. Reyburn McClellan, Xenia, asking if The Council approves the pool plan of medical service for clients of the Farm Security Administration which has been substituted in some counties for the segregated account plan. Dr. Lowe reported that, after consideration of this question, the committee recommends to The Council that it approve the following resolution:

"That The Council does not object to a pool plan for financing the Farm Security medical program, providing the basic principles of the plan in operation in Logan County are adhered to and the plan is acceptable to the county medical society of the county in which the plan is contemplated."

On motion by Dr. Klotz, seconded by Dr. McCormick and carried, the foregoing resolution was adopted.

Dr. Lowe reported that the committee had discussed a communication from Dr. C. L. Barrett, Bellefontaine, which indicates some misunderstanding about the proposed physical examination program of the Farm Security Administration. He stated the committee recommends that The Council should suggest to all county medical societies that they defer action on this proposal until more information has been obtained by the committee for consideration by The Council. On motion by Dr. McNamee, seconded by Dr. Hogue and carried, this recommendation was approved.

POLICY ON HOSPITAL BUILDING BILL

The Federal Hospital Building Proposal, S. 3230, was discussed thoroughly by the committee, Dr. Lowe reported, and the following action taken for consideration of The Council:

"Resolved that The Council of the Ohio State Medical Association approve legislation authorizing financial assistance by the Federal Government in hospital construction programs in communities where the need for such hospitals is proven, providing the legislative proposal is in accord with principles established by the American Medical Association."

On motion by Dr. Sherburne, seconded by Dr. Seiler and carried, this resolution was adopted.

Dr. Lowe reported that the committee has

discussed the legislative and political situation and recommends to The Council that it instruct the Sub-Committee on Legislation to carry on pre-election activities similar to those carried on during the Summer and Fall of 1938. On **motion** of Dr. Hogue, seconded by Dr. Sherburne and **carried**, this recommendation was approved.

MEMBERSHIP QUESTIONS

The Executive Secretary reported on several membership problems, especially that involving physicians not in private practice but engaged in government service or in teaching positions and who are not eligible to membership in the State Association because they do not hold an Ohio license. It was the sense of Council that it would be necessary for the Executive Secretary to enforce the present provisions of the Constitution and By-Laws, but, on **motion** by Dr. McCormick, seconded by Dr. Schriver and **carried**, The Council instructed the Judicial and Professional Relations Committee to make a thorough study of this question and to explore the possibilities of amending the Constitution and By-Laws to take care of exceptional cases as described above.

Dr. Sherburne, chairman of the Committee on Auditing and Appropriations, presented and reviewed the annual audit of the books of the State Association and *The Journal* made by a Columbus firm of certified public accountants. On **motion** by Dr. Seiler, seconded by Dr. Burley and **carried**, the audit was **accepted and approved**.

MISCELLANEOUS BUSINESS

Amendments to the constitution and by-laws of the Greene County Medical Society and the Licking County Medical Society, presented by those societies for review by The Council, were considered. On **motion** by Dr. Klotz, seconded by Dr. Swan and **carried**, the amendments as presented were officially **approved**.

A communication and resolution relative to resettlement of physicians were considered. On **motion** of Dr. Seiler, seconded by Dr. Sherburne and **carried**, they were ordered filed for future reference.

A request from the Cincinnati Academy of Medicine asking the State Association to consider the possibility of participating in litigation involving alleged malpractice by a physician, by the filing of a brief in support of a motion to have the case reviewed by the Ohio Supreme Court, was considered. On **motion** by Dr. McCormick, seconded by Dr. Schriver and **carried**, the question was referred to the Judicial and Professional Relations Committee with authorization to obtain legal advice and to take whatever action might be deemed by the committee to be necessary.

A communication from the Stark County Medical Society relating to fees for physicians for

filling out certain types of insurance papers was read and, on **motion** by Dr. Rutledge, and seconded by Dr. Beer and **carried**, was referred to the Committee on Public Relations and Economics for study with the suggestion that those interested be given an opportunity to be heard.

The resignation of Dr. Lowe as a member of the Committee on Public Relations and Economics, due to pressure of private business, was accepted with regret.

On **motion** of Dr. Sherburne, seconded by Dr. Rutledge and **carried**, The Council extended a vote of appreciation to Dr. Smith for his services during the past year and instructed the Executive Secretary to have flowers sent to Mrs. Smith and to Mrs. Skipp (wife of Dr. Skipp, the incoming President).

The Council then recessed to meet with the House of Delegates on Tuesday, May 14.

Attest: CHARLES S. NELSON,
Executive Secretary.

SPECIAL MEETING HELD

A special meeting of The Council was held on Wednesday afternoon, May 15, following the final session of the House of Delegates.

The Council confirmed the reappointment by President Skipp of the Committee on Auditing and Appropriations as follows: Dr. Sherburne, chairman; Dr. McCormick and Dr. McNamee.

On **motion** by Dr. McNamee, seconded by Dr. McCormick and **carried**, the President was authorized to appoint a Committee on Medical Service Plans and to use his own judgment as to the size and personnel of the committee which will play a leading role in preparing and promoting the enabling act authorized by the House of Delegates at its closing session that afternoon.

The Council then adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Physicians Speak at Safety Congress

A number of Ohio physicians participated in the All-Ohio Safety Congress, sponsored by the Division of Safety and Hygiene of the State Industrial Commission, at the Deshler-Wallick Hotel, Columbus, April 16-18. Dr. Edward J. McCormick, Toledo, was toastmaster at the annual banquet. Dr. R. L. Johnston, Dayton, spoke on "Medical Department's Place in Industry", at a sectional meeting for the rubber industry. Dr. Sidney McCurdy, Supervisor of the Medical Section, State Industrial Commission, was chairman of a session on "Occupational Disease Hazards—Their Cause and Control", at which Dr. Kenneth D. Smith, Columbus, formerly chief of the Division of Occupational Diseases, State Department of Health, discussed "Occupational Diseases Occurring in Ohio".

Program, Par Excellence, Attracts Record-Breaking Attendance For Annual Meetings of Association Held in Cincinnati

THE Ninety-Fourth Annual Meeting of the Ohio State Medical Association held at the Netherland Plaza, Cincinnati, May 14-16, was rated by physicians who have been attending state meetings for many years as one of the outstanding in the history of the State Association.

An excellent scientific program, including the usual general sessions, section meetings, round-table conferences and educational exhibit, attracted more physicians to Cincinnati than had ever attended previous annual meetings held there. Total registration was 1,589, including 1,152 physicians and 437 guests and exhibitors.

Interest in the session was by no means restricted to strictly scientific matters. One of the best attended general sessions was that devoted to a discussion of "Medical Service Plans", led by Dr. J. A. Hannah, Managing Director of Associated Medical Services, Inc., Toronto, Canada. "Medical Care of the Poor", an ever-present problem of the profession, was the subject of another general session, which was ably addressed by Charles L. Sherwood, State Director of Public Welfare.

Adoption of a resolution without a dissenting vote, directing The Council to prepare enabling legislation for introduction at the January, 1941, session of the Ohio General Assembly, to provide legal basis for the establishment of medical service plans by the medical profession in Ohio communities where they may be needed, was the most significant action of the House of Delegates at the Cincinnati session.

WOMAN'S AUXILIARY ORGANIZED

Another noteworthy occurrence at the Cincinnati meeting was the formation of a Woman's Auxiliary to the Ohio State Medical Association, Ohio being the 39th state to establish such an organization.

Never before at an Annual Meeting did radio play such an important part. In addition to twelve 15-minute broadcasts over Cincinnati stations, for the first time the principal address at the Annual Banquet was on a nation-wide hook-up, Senator Robert A. Taft's address on "Medical Care of the Needy", being broadcast from coast-to-coast by the Columbia Broadcasting System.

Credit for the arrangement of this highly successful session goes to a large number of individuals who worked diligently and conscientiously to fulfill the tasks that had been assigned to them. These include the Committee on Scientific Work of the State Association and the Commit-

tee on Educational Exhibits; the local committee on arrangements of the Cincinnati Academy of Medicine; and the section officers.

PRAISE FOR PROGRAM-MAKERS

Members of the Committee on Scientific Work were: Dr. Claude B. Norris, Youngstown, chairman; Dr. Albert F. Kuhl, Dayton; Dr. M. M. Zininger, Cincinnati; Dr. Fred W. Dixon, Cleveland, and Dr. Stanley D. Giffen, Toledo.

The Committee on Educational Exhibits con-

AN IMPORTANT SUGGESTION

Business transacted at the Annual Meeting is recorded in detail in the Proceedings of the House of Delegates, published on pages 649-665 of this issue. Every member should read these minutes to familiarize himself with the problems confronting the Association and with its activities—past and future.

sisted of Dr. Zininger, chairman; Dr. Robert J. Tapke, and Dr. E. A. Kindel, Cincinnati.

The Local Committee on Arrangements was ably directed by Dr. Wm. M. Doughty, general chairman. Other members of the general committee were: Dr. Parke G. Smith, Dr. E. O. Swartz, president of the Cincinnati Academy of Medicine, and Dr. Zininger.

Assisting them were the following: **Reception:** Dr. John A. Caldwell, chairman; Dr. Charles A. Langdale; Dr. Daniel J. Kindel; Dr. Lee Foshay; Dr. Moses Salzer; Dr. Lloyd B. Johnston. **Halls and Meeting Places:** Dr. William J. Graf and Dr. Cecil Striker, co-chairmen; Doctors Byron E. Boyer, Richard D. Bryant, A. T. Childers, Joseph G. Crotty, Clyde M. Dummer, Daniel E. Earley, Ralph W. Eddy, Howard D. Fabing, E. V. Ferguson, Eugene B. Ferris, Willard B. Fessenden, Harry L. Fry, Stanley T. Garber, William M. German, N. J. Giannestras, J. Victor Greenebaum, Albert L. Haas, Joseph D. Heiman, D. W. Heusinkveld, Charles E. Howard, Robert L. Johnston, Daniel J. Kindel, E. A. Kindel, Edward King, Robert H. Kotte, J. J. Longacre, Louis A. Lurie, Frank H. Mayfield, Ralph H. Miller, Charles H. Moore, Louis B. Owens, Robert Perlman, Dewey H. Reps, Clare R. Rittershofer, Daniel C. Rivers, Clyde S. Roof, Robert C. Rothenberg, James M. Ruegsegger, Harry M. Salzer, Leon Schiff, A. L. Schwartz, Theodore K. Selkirk, H. H. Shook, Louis Sommer, Clifford J. Straehley, Emil R. Swepton, David A. Tucker, Jr., Theodore H. Vinke, T. Brent Wayman, Carl

A. Wilzbach. **Annual Banquet:** Dr. Henry B. Freiberg, chairman; Dr. Symmes F. Oliver, Dr. Ralph G. Carothers. **Projection Apparatus:** Dr. Clyde S. Roof, chairman; Drs. Daniel J. Kindel, Wm. M. German, Charles H. Moore, Ralph Hatfield, John G. Fleming, Mr. Clem Haun, Mr. Elmer Heyn. **Radio Programs:** Dr. Carl A. Wilzbach. **Entertainment for Women Guests:** Mrs. Horace F. Tangeman, chairman; Mesdames Richard Austin, Arthur Beyer, Richard Bryant, Ralph Carothers, Daniel Davies, Starr Ford, Wm. Freyhof, Gaston Hannah, Charles Heisel, Louis Heyn, Samuel Iglauer, Charles Kiely, Joseph Lindner, Charles J. McDevitt, Gordon McKim, Wm. Mithoefer, Wm. O. Ramey, E. O. Swartz, David Tucker, Derrick Vail, Ward H. Ventress, E. A. Wagner, Max Zininger.

GUEST SPEAKERS EXCELLENT

Attendance at the general sessions was good, varying from 200 to nearly 500 at the evening sessions. There was much favorable comment concerning the excellent papers presented at these sessions. The guest speakers were: Dr. Ralph R. Mellon, Director of the Pneumonia Research Fund of the Mellon Institute of Industrial Research, Pittsburgh, Pa.; Dr. Richard B. Cattell, Boston, Mass.; Dr. W. Osler Abbott, Philadelphia, Pa.; Dr. C. Guy Lane, Boston, Mass.; Dr. Ralph M. Waters, Madison, Wis. Ohio physicians who spoke at the general sessions were: Dr. E. J. Wenaas, Youngstown; Dr. Raymond A. Ramsey, Columbus; Dr. M. A. Blankenhorn, Cincinnati; Dr. Sidney E. Wolpaw, Cleveland.

GOOD SECTION PROGRAMS

Another important contribution to the scientific phase of the Cincinnati meeting was the splendid programs arranged by the section officers for the seven scientific sections. Officers of these sections and the essayists were:

Section on Surgery—Dr. John V. Hartman, Findlay, chairman, and Dr. Robt. T. Allison, Jr., Akron, secretary. Essayists: Dr. W. W. Green, Toledo; Dr. Donald M. Glover, Cleveland; Dr. Joseph P. Evans, Cincinnati; Dr. Robert C. Austin, Dayton; Dr. Jack Greenfield (by invitation) and Dr. George M. Curtis, Columbus.

Section on Pediatrics—Dr. W. B. Taggart, Dayton, chairman, and Dr. Edward A. Wagner, Cincinnati, secretary. Essayists: Dr. Edward A. Wagner and Dr. Daniel V. Jones, Cincinnati; Dr. Carl E. Zeithaml, Cleveland; Dr. George C. Malley, Zanesville; Dr. J. Victor Greenebaum, Dr. Samuel Brown and Dr. Theodore K. Selkirk, Cincinnati; Dr. John E. Brown, Jr., Columbus.

Section on Eye, Ear, Nose and Throat—Dr. Edward King, Cincinnati, chairman, and Dr. W. H. Evans, Youngstown, secretary. Essayists: Dr. Edward R. Thomas, Dayton; Dr. Samuel Iglauer, Cincinnati; Dr. Thomas C. Galloway, Evanston, Ill.; Dr. William F. Hatcher, Youngstown; Dr. Clarence W. Engler, Cleveland.

Section on Medicine—Dr. Wm. P. Garver, Cleveland, chairman, and Dr. John L. Stifel, Toledo, secretary. Essayists: Dr. Maurice A. Schnitker, Toledo; Dr. Charles A. LaMont, Canton; Dr. Frederick S. Coombs, Youngstown (by invitation); Dr. Walter M. Simpson, Dayton; Dr. John A. Toomey, Cleveland.

Section on Obstetrics and Gynecology—Dr. R. C. Doan, Miamisburg, chairman, and Dr. Charles W. Pavey, Columbus, secretary. Essayists: Dr. John Gardiner, Toledo; Dr. Ralph K. Ramsayer, Canton; Dr. Francis W. Davis, Columbus; Dr. Marion L. Ainsworth, Columbus, Dr. D. D. Forward, Ashtabula.

Section on Nervous and Mental Diseases—Dr. Richard E. Stout, Cleveland, chairman, and Dr. Nicholas Michael, Columbus, secretary. Essayists: Dr. Charles Lewis Langsam, Macedonia (by invitation); Dr. Maurice Levine, Cincinnati; Dr. D. A. Johnston, Cincinnati; Dr. Albert T. Steegmann, Cleveland; Dr. William Ravine, Cincinnati.

Section on Public Health and Preventive Medicine—Dr. John J. Sutter, Wooster, chairman, and Dr. Beatrice T. Hagen, Zanesville, secretary. Essayists: Dr. Harold J. Knapp, Cleveland; Dr. E. P. Edwards, Cleveland; Mrs. Hazel McIntire, Columbus. Discussants: Dr. C. L. Hyde, Akron; and Mr. Walter Underwood, Columbus.

SCIENTIFIC EXHIBITS CLICK

After a year's absence from the Annual Meeting program, the Scientific Exhibit returned this year, but on a somewhat different basis. Exhibits were by invitation only, and they were selected for their educational benefit rather than for their portrayal of the results of research. It was quite evident that this decision of the Committee on Scientific Work was a wise one, as these educational exhibits were one of the real hits of the meeting. Participating in this display of medical progress were the following: Dr. Warren C. Breidenbach, Dayton; Dr. Thomas P. Sharkey, Dayton; Cincinnati Academy of Pharmacy and Ohio Valley Druggists Association in cooperation with the Ohio State Pharmaceutical Association; Dr. Wm. H. Meffley and Dr. Murray E. Goodrich, Toledo; Dr. Milton B. Cohen, Cleveland; Department of Ophthalmology, University of Cincinnati and Cincinnati General Hospital; Dr. Samuel Iglauer, Dr. Sidney Lange and Dr. Samuel Brown, Cincinnati; Dr. Charles A. Doan and Dr. Bruce K. Wiseman, Columbus; Dr. Russell L. Haden, Cleveland; Dr. H. L. Reinhart, Dr. John W. Means, Dr. C. J. DeLor, Columbus, and the Ohio State Society of Pathologists; Dr. Richard J. Stevens, Cincinnati; Dr. B. N. Carter and Dr. J. N. Christiansen, Cincinnati; Brush Foundation and Bolton Fund, Cleveland; Dr. Thomas E. Jones, Cleveland; Dr. Frank H. Mayfield, Cincinnati; Dr. James N. Wychgel, Cleveland; Dr. George L. Sackett, Dr. Harry L. Farmer, Dr. Walter C. Hill and Dr. Merthyn A. Thomas, Cleveland; Dr. Dudley M. Stewart, Toledo; Metropolitan Life Insurance Company, New York City; Dr. H. L. Claassen and Dr. Charles Goosmann, Cincinnati.

ASSOCIATION'S ACTIVITIES PICTURED

A feature of major interest in the corridors outside the meeting halls in Cincinnati was the State Association's own exhibit. Designed to give the members a fuller acquaintanceship with

the purposes and services of their state organization, this large exhibit occupied 26 feet of wall space along the foyer to the Pavillon Caprice, meeting place of the House of Delegates.

The exhibit proper consisted of five large panels, four of them 40 by 60 inches in dimensions and the central panel 60 by 80 inches. These five panels, each of which was an enormous single photographic enlargement, depicted graphically the structure of the State Association, the work of its committees, its various services to members individually, its educational efforts, and the work of its Bureau of Public Education. The whole exhibit was illuminated by a powerful floodlight.

Mounted in front of the paneled background was a "mechanical book," which served to attract the attention of the physicians to the exhibit itself. The pages of this "book," which were turned automatically at 20-second intervals by an electrical device, bore brief, poignant messages, each referring to a different aspect of the State Association as illustrated by one of the panels.

The panels of the exhibit are portable and are available for display at gatherings such as district meetings, post-graduate days, etc.

ROUND-TABLES POPULAR

Twenty round-table conferences were included in the program, 10 on Tuesday afternoon and 10 Thursday afternoon. Attendance averaged 25—just about right for the type of free-for-all discussion which characterized most of the conferences. First tried at the Toledo meeting last year, these conferences have proved their practical worth and are undoubtedly a fixture on Annual Meeting programs. Leaders of the conferences at Cincinnati were: Dr. C. C. Sherburne, Columbus; Dr. John M. VanDyke, Canton; Dr. Herbert W. Kendell, Dayton; Dr. Elmore B. Tauber, Cincinnati; Dr. Lloyd E. Seyler, Dayton; Dr. Frederick W. Clement, Toledo; Dr. A. C. Brickel, Cleveland; Dr. John E. Rauschkolb, Cleveland; Dr. Henry B. Freiberg, Cincinnati; Dr. Charles W. Pavey, Columbus; Dr. Roy W. Scott, Cleveland; Dr. A. B. Bruner, Cleveland; Dr. Albert F. Kuhl, Dayton; Dr. Lee Foshay, Cincinnati; Dr. Paul J. Fuzy, Youngstown; Dr. E. R. Thomas, Youngstown; Dr. H. L. Reinhart, Columbus; Dr. Ralph M. Watkins, Cleveland; Dr. W. H. McGaw, Cleveland; Dr. George Lyford, Cincinnati; Dr. R. H. Markwith, Columbus; and Dr. Henry M. Goodyear, Cincinnati.

FINE PROGRAM FOR THE LADIES

Women guests who attended the 94th Annual Meeting were most hospitably entertained by a committee of Cincinnati physicians' wives, of which Mrs. Horace F. Tangeman was general chairman. The program included a visit to the Taft Museum and tea at the Town Club, Tuesday

afternoon; a luncheon in the Florentine Room of the Hotel Gibson, Wednesday noon; dinner, music and bridge Wednesday evening at the Hotel Sinton, with Mrs. Parke G. Smith, Cincinnati, wife of the President of the State Association, and Mrs. Wm. M. Skipp, Youngstown, wife of the President-Elect, as honored guests; a bus trip to interesting points in Cincinnati on Thursday afternoon, and the Annual Banquet, Thursday evening. Many of the visiting women participated in the organization sessions of the Woman's Auxiliary Wednesday morning and afternoon. A full account of these sessions appears elsewhere in this issue of *The Journal*.

BANQUET IS GALA OCCASION

Approximately 350 physicians and their guests attended the Annual Banquet held in the beautiful Hall of Mirrors of the Netherland Plaza, Thursday night. Dr. William M. Doughty, Cincinnati, was the toastmaster, and he handled that important assignment as capably as he did the responsibility which was his as general chairman of the local committee on arrangements. With him at the speakers' table were: Senator Robert A. Taft, who gave the principal address; Dr. Parke G. Smith, Cincinnati, retiring President; Dr. Wm. M. Skipp, Youngstown, President; Dr. Harry V. Paryzek, Cleveland, President-Elect; Dr. Barney J. Hein, Toledo, Past-President; Dr. E. O. Swartz, President of the Cincinnati Academy of Medicine; and the following District Councilors of the State Association: Dr. L. Howard Schriver, Cincinnati; Dr. E. P. McNamee, Cleveland; Dr. Ralph L. Rutledge, Alliance; Dr. Carl Goehring, Steubenville; Dr. George F. Swan, Cambridge; Dr. I. P. Seiler, Piketon, and Dr. C. C. Sherburne, Columbus.

Dr. Hein presented the Past-President's gavel to Dr. Smith, thanking him on behalf of the members of the Association for his diligent efforts during the past year. This traditional ceremony was especially significant this year, as the Past-President's gavel is a replica of the official gavel which was given to the Association by Dr. George W. Crile, Cleveland, at the Seventy-Sixth Annual Meeting held at Cincinnati, May 2-4, 1922. The wood in this historic gavel came from the first flag pole erected in France during the World War by an American medical unit—the Lakeside Hospital Unit, which was organized by Dr. Crile, and of which Dr. Paryzek, the new President-Elect, was a member.

Senator Robert A. Taft was introduced by Dr. Smith. His timely address on "Medical Care For the Needy", is published in full in this issue of *The Journal*.

SPLENDID TECHNICAL DISPLAYS

Probably the most complete list of exhibitors who ever displayed their products at an Annual Meeting occupied the exhibit halls at the Nether-

land Plaza during the 94th Annual Session. All available space was utilized. Requests of nearly a dozen firms for exhibit booths could not be filled. Members of the State Association appreciate the participation from year to year in the Annual Meeting of those companies offering approved products to the medical profession. Exhibitors generally were well pleased with the patronage obtained during the meeting.

A complete list of the exhibiting companies follows: American Medical Business Bureau, Inc., Fort Wayne, Ind.; American Safety Razor Corporation, Brooklyn, New York; Arlington Chemical Company, Yonkers, New York; Bilhuber-Knoll Corporation, Orange, New Jersey; The Borden Company, New York City; Cameron Surgical Specialty Company, Chicago, Ill.; Coca-Cola Company, Atlanta, Ga.; Davies, Rose & Company, Ltd., Boston, Mass.; DePuy Manufacturing Company, Warsaw, Ind.; Dietene Company, Minneapolis, Minn.; W. E. Falk, Cincinnati; Foregger Company, New York City; General Electric X-Ray Corporation, Chicago, Ill.; Gerber Products Company, Fremont, Mich.; H. J. Heinz Company, Pittsburgh, Pa.; Holland-Rantos Co., Inc., New York City; Horlick's Malted Milk Corporation, Racine, Wis.; Jones Metabolism Equipment Company, Chicago, Ill.; Kelley-Koett Mfg. Company, Covington, Ky.; Lederle Laboratories, Inc., New York City; Liebel-Flarsheim Company, Cincinnati; Eli Lilly & Company, Indianapolis, Ind.; J. B. Lippincott Company, Philadelphia, Pa.; M & R Dietetic Laboratories, Inc., Columbus; Mead Johnson & Company, Evansville, Ind.; Medical Protective Company of Fort Wayne, Indiana, Wheaton, Ill.; Mellin's Food Company, Boston, Mass.; Wm. S. Merrell Company, Cincinnati; C. V. Mosby Company, St. Louis, Mo.; Parke, Davis & Company, Detroit, Mich.; Petrolagar Laboratories, Inc., Chicago, Ill.; Philip Morris & Company, Ltd., New York City; Picker X-Ray Corporation, New York City; S. M. A. Corporation, Chicago, Ill.; W. B. Saunders Company, Philadelphia, Pa.; Scheer & Burke X-Ray Sales Company, Cleveland; Smith, Kline & French Laboratories, Philadelphia, Pa.; Frederick Stearns & Company, Detroit, Mich.; Vernon Ginger Ale Company, Detroit, Mich.; W. T. Wagner's Sons Company, Cincinnati; Westinghouse X-Ray Company, Cleveland; White Laboratories, Inc., Newark, N. J.; Winthrop Chemical Company, Inc., New York City; Max Woehner and Son Company, Cincinnati; John Wyeth and Bro., Inc., Philadelphia, Pa.

HOTEL, NEWSPAPERS, ETC., COMMENDED

There are factors other than the quality of the program and the faithful performance by committees that are essential to the success of an Annual Meeting. One of these—and probably the most important—is an attractive, spacious hotel, which will house all the activities of the meeting. The Netherland Plaza meets these requirements. Blessed with many adequate meeting rooms; a courteous and efficient staff; excellent cuisine, and generally comfortable accommodations, it is tops in its field.

Also assisting in the physical arrangements for the meeting was the Cincinnati Chamber of Commerce, which is entitled to a vote of thanks for furnishing necessary clerical help at the

Registration Headquarters. Local newspapers and radio stations cooperated to the fullest.

To Ray Swink, Executive Secretary of the Cincinnati Academy of Medicine, and his tireless staff, innumerable physicians are indebted for many courtesies extended at the Information Desk. This hub of activity was typical of the gracious hospitality and splendid cooperation of all Cincinnatians who had anything to do with the 94th Annual Meeting.

Newest Member of The Council Is Diligent Organization Worker

Newest member of The Council of the Ohio State Medical Association is Dr. Guy E. Noble, St. Marys. Dr. Noble was elected by the House

of Delegates at the 94th Annual Meeting in Cincinnati to serve as Councilor of the Third District. He succeeds Dr. O. P. Klotz, Findlay, who after many years of faithful service on The Council, expressed a desire to retire from that official position.



DR. NOBLE

Dr. Noble received his doctor of medicine degree in 1905 from Starling Medical College, Columbus, where he was graduated with honors. While attending medical school he was a student-assistant of the late Drs. Will and Charles Hamilton, Columbus. He served his externship and internship at Mt. Carmel Hospital, Columbus.

After completing his work at Mt. Carmel Hospital, Dr. Noble opened offices in his home town, St. Marys, where he engages in general practice and surgery. He is a member of the staffs of Memorial and St. Rita's hospitals, Lima, and the courtesy staffs of hospitals in Celina.

Dr. Noble has for many years been active in the Auglaize County Medical Society and the State Association. For the past 18 years he has been the dependable chairman of the Legislative Committee of his county medical society and for the past few years has represented that society in the House of Delegates of the State Association. Dr. Noble always has been an alert and diligent organization worker.

Columbus—Dr. Jonathan Forman was one of the participants in a campus town hall meeting at Ohio State University on the subject, "The Extension of Professional Services to People of Low Income".

Cincinnati—"The History of Heart Disease from Hippocrates to the Present," was the topic discussed by Dr. Clifford J. Strahley at a meeting of the Buckeye Club.

Conferences on Medical Service Plans and Medical Care of the Needy Attract Large and Enthusiastic Audiences

TWO outstanding and unique features of the 94th Annual Meeting in Cincinnati were the general conferences held on Tuesday and Thursday afternoons during the meeting where members had an opportunity to listen to authoritative discussions on two important phases of the question relating to the distribution of medical care and take part in a question-answer period.

Between 300 and 350 members attended the "Conference on Medical Service Plans" held on Tuesday afternoon, May 14. This session was arranged by the Committee on Medical Service Plans for the purpose of acquainting members of the medical profession with the objectives, organization and administration of group medical service plans designed primarily for those of the low-income groups. Dr. David A. Tucker, Jr., Cincinnati, chairman of the committee, presided.

Guest speaker at this conference was Dr. J. A. Hannah, managing director of Associated Medical Services Inc., Toronto, Canada, an agency organized by the medical profession of the Province of Ontario to distribute medical services on a voluntary prepayment basis.

Following Dr. Hannah's stirring and informative address on the topic, "An Experiment in Budgeting Against the Cost of Illness", numerous questions were asked the speaker and many important points regarding the activities of the Committee on Medical Service Plans of the Ohio State Medical Association were discussed by members of that committee. It was one of the most interesting and worthwhile sessions of this character ever held by the State Association and met with widespread approval of those who attended.

The text of Dr. Hannah's address will be published in an early issue of The Ohio State Medical Journal together with a summary of many of the questions asked and answered by him and members of the Committee on Medical Service Plans.

Another question of current interest and importance, "Medical Programs for Recipients of Public Assistance", was discussed at the general conference held on Thursday afternoon, May 16, under the auspices of the Committee on Poor Relief of the Ohio State Medical Association. This session was attended by approximately 150 members, most of whom were officers and committeemen of various component medical societies especially interested in bringing about improvements in local medical programs for those receiving aid at public expense.

The State Association was honored by having as its guest speaker at this conference, Hon. Charles L. Sherwood, State Director of Public Welfare, one of the outstanding authorities in

the country on welfare and relief administration. Mr. Sherwood discussed the provisions of Ohio public assistance laws and the good and bad points of present relief programs in this state as they relate to medical care. His address was highly

HOUSE OF DELEGATES APPROVES THE INTRODUCTION OF ENABLING ACT

Without a dissenting vote, the House of Delegates at the 94th Annual Meeting, May 14-16, Cincinnati, adopted a resolution authorizing "the preparation, under the direction of The Council, of an enabling act to permit the formation of agencies by the medical profession to operate medical service plans primarily designed for the low-income group and the introduction of such proposal at the regular session of the Ohio General Assembly opening in January, 1941".

This resolution originated in the Committee on Medical Service Plans which has been studying the subject for the past two and one-half years. It carried the approval of the Committee on Public Relations and Economics and The Council, as well as that of the Reference Committee on Resolutions.

Its adoption by the House of Delegates places the State Association as a unit behind The Council in preparing enabling legislation and in carrying on an educational campaign which will be necessary to obtain favorable action by the General Assembly in 1941.

The resolution does not pertain to medical service plans as such. It merely authorizes the introduction of a bill which, if enacted, would produce a sound legal basis for plans which may be organized by local medical societies in communities where there is a need for a program of this kind and such plan is desired by the physicians of that community.

Every member should read the explanatory statement which accompanied the resolution found on pages 655-656, and a part of the official proceedings of the House of Delegates.

informative and well received. Many questions were asked before the conference adjourned.

The text of Mr. Sherwood's address will be

published in an early issue of *The Ohio State Medical Journal*.

The chairman of this session was Dr. Walter K. Stewart, Youngstown, chairman of the Committee on Poor Relief. Members of the committee were present and took part in the general discussion which followed Mr. Sherwood's remarks.

It was obvious that the Annual Meeting offers an excellent opportunity for a discussion of questions of this kind. The conference arranged for this year's meeting were in the nature of an innovation. The attendance of and interest manifested by so many members marked the sessions as successful and valuable. Members of both committees deserve a vote of appreciation for their efforts in arranging for two such exceptionally good conferences and programs.

All members of the State Association should read and will enjoy reading the addresses of Dr. Hannah and Mr. Sherwood when they appear in *The Journal*.

Plans Completed for New State Laboratory Building on Ohio State Campus

Plans have been agreed upon for the construction of a new laboratory building on the Ohio State University campus for housing the laboratory facilities of the State Department of Health. It will be located immediately West of the buildings which now house the University Hospital and medical and dental colleges. The State Emergency Board has set aside \$50,000 for the construction of the new building.

Removal of all the health department facilities to the university campus is the ultimate goal of state and university officials. The complete project calls for a \$350,000 building, of which the new laboratory structure will become the East wing. Construction of the whole unit, however, must await legislative appropriation.

According to Dr. R. H. Markwith, State Director of Health, one of the chief reasons for planning the move to the university is that it will permit greater cooperation between the State Department of Health and the colleges of medicine, dentistry and veterinary medicine.

At the present time most of the health department's laboratory facilities are in an old building on the campus which will be dismantled after their removal. Because of lack of space the laboratories for the Division of Industrial Hygiene are now in a rented office building in downtown Columbus.

Details of the plans to erect the new laboratory building were worked out by Dr. Markwith, his staff, the Public Health Council and the trustees of Ohio State University.

All offices of the health department except the laboratories are now located on the third floor and in the basement of the State Office Building.

Six Physicians Nominated on May 14 for Legislative Offices

Six members of the Ohio State Medical Association were nominated for Federal and State legislative offices at the primary elections on May 14.

Dr. Frederick C. Smith, Marion, now representing the Eighth Congressional District at Washington, was re-nominated for that post. The Eighth District comprises Crawford, Hancock, Hardin, Marion, Morrow and Wyandot counties.

Nominees for the State Senate include Dr. H. T. Phillips, Athens, and Dr. George G. Hunter, Ironton. Dr. Phillips, Chairman of the Senate Committee on Public Health in the 93rd Ohio General Assembly (1939-1940), is a candidate for re-election from the Ninth-Fourteenth Senatorial District, comprising Fairfield, Hocking, Morgan, Athens, Washington and part of Noble and Monroe counties. Dr. Phillips represented Athens County in the House of Representatives in 1935-1936. Dr. Hunter was nominated for State Senator from the Seventh-Eighth District, which is entitled to two Senators in 1941-1942. Counties in the district are: Adams, Pike, Scioto, Vinton, Jackson, Lawrence, Meigs and Gallia. Dr. Hunter served in the legislature in 1929-1930, as a member of the House of Representatives from Lawrence County.

Three physicians were nominated for the House of Representatives. Dr. Errett LeFever, Glouster, Athens County representative and Chairman of the House Health Committee in 1939-1940. Unopposed for the Republican nomination, Dr. LeFever is a veteran legislator, having represented Athens County in the House of Representatives for 10 years. He was state senator from the Ninth-Fourteenth District for eight years. Dr. H. V. Dutrow, Dayton, was nominated from Montgomery County, and Dr. Forrest R. Stewart, Ironton, from Lawrence County.

Union District Society Meets

The 144th Semi-Annual Meeting of the Union District Medical Association was held at the Lutheran Church, New Castle, Indiana, Thursday, April 25. Speakers included: Dr. M. A. Austin, Anderson, Ind., "Organized Medicine"; Dr. Archibald Fine, Cincinnati, "The Treatment of Advanced Cancer"; Dr. A. K. Harcourt, Indianapolis, "Injection Treatment of Hernia"; Dr. Howard B. Mettall, chief, Bureau of Maternal and Child Health, Indiana State Board of Health, "The Relationship of Medical Practice to Existing Federal and State Legislation." The program was arranged by the officers of the Association: Dr. Will A. Thompson, Liberty, Ind., president; Dr. G. A. Herman, Hamilton, vice-president; and Dr. P. W. Blosson, Richmond, Ind., secretary-treasurer.

Woman's Auxiliary to State Association Organized at Cincinnati; Mrs. J. E. Purdy, Canton, Named President

THE Woman's Auxiliary to the Ohio State Medical Association was organized at the Hotel Gibson, Cincinnati, Wednesday, May 15, during the 94th Annual Meeting of the Association. Thirty-nine physicians' wives, officially representing as many county medical societies, adopted a constitution and by-laws for the Auxiliary; elected officers, and elected a delegate to represent them at the session of the Woman's Auxiliary of the American Medical Association to be held at the Hotel Pennsylvania, New York, June 10-14.

Dr. Parke G. Smith, President of the Ohio State Medical Association, opened the morning session with an address of welcome, including a brief statement of the purpose of the meeting. He pointed out that the House of Delegates of the State Association at its meeting in Toledo in May, 1939, had adopted a resolution instructing The Council to form a Woman's Auxiliary. Dr. Smith then introduced two representatives of the Woman's Auxiliary of the A.M.A., present to assist in the creation of the new organization: Mrs. David W. Thomas, Lock Haven, Pa., First Vice-President; and Mrs. M. B. Van Cleave, Terre Haute, Indiana, Third Vice-President and Regional Chairman. Mrs. Thomas was appointed temporary chairman by Dr. Smith. George H. Saville, Assistant Executive Secretary of the State Association, was designated to act as temporary secretary.

NATIONAL OFFICERS PRESENT

Mrs. Thomas reviewed the history of the founding of the Woman's Auxiliary of the American Medical Association in 1922. She stated that the first state auxiliary was formed in Texas in 1918, the idea originating following a reception for women guests at the meeting of the Southern Medical Association at Dallas in 1917. Mrs. Thomas pointed out how an auxiliary can be of a distinct service to the medical profession by helping to develop unity through fellowship between members of physicians' families; entertainment of the wives of visiting physicians at medical meetings; stimulating the attendance of physicians at the medical meetings, and in carrying on various philanthropic and educational programs. She emphasized that all activities of the auxiliary must have the approval of the Advisory Councils of the county medical society and the State Medical Association. The pleasure of the officers of the Woman's Auxiliary of the American Medical Association at having Ohio become one of its component societies was expressed by Mrs. Thomas and by Mrs. Van Cleave. It was stated that the membership of the A.M.A. aux-

iliary is now 23,000 in 38 states, and that 66 new county auxiliaries were organized this past year.

Before proceeding with the official business, the session was addressed by Dr. Edgar C. Baker, Youngstown, a member of the Executive Committee of the Ohio Division of the Women's Field Army for the Control of Cancer. Dr. Baker explained the objectives of the field army and asked for the support of the new Auxiliary.

ADOPT CONSTITUTION

The constitution and by-laws of the Auxiliary, which were considered at the morning session and adopted with minor amendments in the afternoon, had been drafted prior to the meeting by a special committee of The Council of the Ohio State Medical Association, consisting of Dr. D. W. Hogue, Springfield, chairman; Dr. O. P. Klotz, Findlay, and Dr. R. L. Rutledge, Alliance. Copies had been mailed to the official delegates several weeks before the meeting. It was announced that printed copies of the constitution and by-laws would be made available later to all who are interested.

Some of the principal provisions of the constitution and by-laws are:

1. **Object of the Auxiliary:** To cooperate with the Ohio State Medical Association in the protection of public health, in promoting health education, and in advancing other aims and purposes of that Association; to assist in the entertainment at Annual Meetings of the Ohio State Medical Association; to promote good fellowship among physicians' families; to carry on such activities as may be suggested and approved from time to time by the Ohio State Medical Association; to unite with similar organizations in other states to constitute the Woman's Auxiliary to the American Medical Association.

2. **Component county auxiliaries.** A woman's auxiliary to a component society of the Ohio State Medical Association may be organized in any county and granted a charter by the State Auxiliary, providing the component medical society gives its official written approval. Only one component auxiliary shall be chartered in each county.

3. **Advisory Committee.** The State Auxiliary shall be guided in all its activities by The Council of the Ohio State Medical Association through an Advisory Committee appointed by the President of the Association, with the approval of The Council of that Association.

4. **Eligibility.** Wives, mothers, unmarried daughters and unmarried sisters of members in good standing of a component society of the Ohio State Medical Association and widows of mem-

bers, who at the time of their decease were in good standing, are eligible for membership in the Auxiliary. A woman eligible for membership who resides in a county where the organization of component auxiliary is deemed impracticable by the Board of Directors, may affiliate with the State Auxiliary as a member-at-large. A woman eligible for membership in the Ohio State Medical Association shall not be eligible for membership in the Auxiliary.

OFFICERS AND DIRECTORS NAMED

During the morning session, Mrs. Thomas appointed the following nominating committee, consisting of one delegate from each of the 11 Councilor Districts of the Ohio State Medical Association: Mrs. Robert B. Ellison, Peebles; Mrs. L. A. Woodburn, Urbana; Mrs. Walter A. Noble, Lima; Mrs. D. J. Slosser, Defiance; Mrs. Clyde L. Cummer, Cleveland; Mrs. Dean A. Nesbit, Youngstown; Mrs. Harry G. Harris, Martins Ferry; Mrs. M. S. Lawrence, Quaker City; Mrs. Dow Allard, Portsmouth; Mrs. Julius Shamansky, Mt. Vernon; Mrs. L. C. Nigh, Mansfield.

The committee met during the noon recess, selected Mrs. Slosser as chairman, and formulated a report which was presented to the delegates at the afternoon meeting. Opportunity was given for nominations from the floor, but none was presented. The report of the committee was unanimously adopted, and the following officers and directors declared elected for the ensuing year:

OFFICERS

President—Mrs. J. E. Purdy, Canton.

Vice-President—Mrs. H. F. Tangeman, Cincinnati.

Secretary-Treasurer—Mrs. J. L. Stevens, Mansfield.

BOARD OF DIRECTORS

First District—Mrs. Henry B. Freiberg, Cincinnati.

Second District—Mrs. W. N. Trostel, Piqua.

Third District—Mrs. H. J. Weisenbarger, Lima.

Fourth District—Mrs. Arthur A. Brindley, Toledo.

Fifth District—Mrs. Clyde L. Cummer, Cleveland.

Sixth District—Mrs. R. B. Poling, Youngstown.

Seventh District—Mrs. C. W. Kirkland, Bellaire.

Eighth District—Mrs. D. R. Sperry, Newark.

Ninth District—Mrs. Ross Moore Gault, Portsmouth.

Tenth District—Mrs. H. M. Clodfelter, Columbus.

Eleventh District—Mrs. Lincoln Fisher, Mansfield.

In accordance with the by-laws, nominations for President-Elect were requested from the floor. Mrs. W. W. H. Curtiss, Dennison, was nominated and elected unanimously.

Mrs. Purdy was elected delegate to the annual session of the Woman's Auxiliary of the American Medical Association.

The delegates were especially pleased with the personnel of their new officers. Mrs. Purdy was the organizer and first president of the Woman's Auxiliary of the Stark County Medical Society which has over 100 members and has been in active existence for 12 years. The Vice-President, Mrs. Tangeman, was the gracious and efficient chairman of the committee in charge of entertainment for women guests at the Cincinnati meeting. Mrs. J. L. Stevens, the new secretary-treasurer, is president of the Woman's Auxiliary of the Richland County Medical Society, which was organized about a year and a half ago. All of the officers and directors are wives of physicians who have been active in the affairs of the medical profession.

NAMES OF DELEGATES

The following tabulation shows the names of official delegates who answered the roll calls of the two sessions:

First District

Adams—Mrs. Robert B. Ellison, Peebles.
Butler—Mrs. Harry L. Burdsall, Hamilton.
Hamilton—Mrs. Henry B. Freiberg, Cincinnati.

Second District

Champaign—Mrs. L. A. Woodburn, Urbana.
Clark—Mrs. Carl Marsh, Springfield.
Miami—Mrs. M. W. Trostel, Piqua.
Montgomery—Mrs. R. K. Finley, Dayton.

Third District

Allen—Mrs. Walter A. Noble, Lima.
Crawford—Mrs. Edward C. Brandt, Crestline.
Hancock—Mrs. Frank M. Wiseley, Findlay.
Hardin—Mrs. Don R. Printz, Ada.
Seneca—Mrs. R. R. Hendershott, Tiffin.
Van Wert—Mrs. James R. Jarvis, Van Wert.
Wyandot—Mrs. R. L. Garster, Upper Sandusky.

Fourth District

Defiance—Mrs. D. J. Slosser, Defiance.
Henry—Mrs. B. L. Johnson, Deshler.
Lucas—Mrs. L. D. Miller, Toledo.

Fifth District

Cuyahoga—Mrs. Clyde L. Cummer, Cleveland Heights.

Sixth District

Mahoning—Mrs. Dean A. Nesbit, Youngstown.
Stark—Mrs. J. E. Purdy, Canton.
Summit—Mrs. Harold J. Gordon, Akron.

Seventh District

Belmont—Mrs. Harry G. Harris, Martins Ferry.
Carroll—Mrs. Carl A. Lincke, Carrollton.
Jefferson—Mrs. S. J. Podlewski, Steubenville.
Tuscarawas—Mrs. W. W. H. Curtiss, Dennison.

Eighth District

Guernsey—Mrs. M. S. Lawrence, Quaker City.
 Licking—Mrs. D. R. Sperry, Newark.
 Morgan—Mrs. E. G. Rex, McConnelsville.

Ninth District

Scioto—Mrs. Dow Allard, Portsmouth.

Tenth District

Knox—Mrs. Julius Shamansky, Mt. Vernon.
 Madison—Mrs. W. A. Holman, London.
 Morrow—Mrs. Wm. Lowell Murphy, Cardington.
 Ross—Mrs. Harold M. Crumley, Chillicothe.
 Union—Mrs. F. C. Callaway, Marysville.

Eleventh District

Erie—Mrs. H. L. Sowash, Sandusky.
 Holmes—Mrs. N. P. Stauffer, Killbuck.
 Lorain—Mrs. Charles R. Meek, Lorain.
 Medina—Mrs. Horatio T. Pease, Wadsworth.
 Richland—Mrs. Lincoln Fisher, Mansfield,
 (Morning Session); Mrs. L. C. Nigh, Mansfield,
 (Afternoon Session.)

In addition to the above delegates, the organization meeting of the Woman's Auxiliary was attended by approximately 50 women who had accompanied their husbands to Cincinnati for the 94th Annual Meeting.

Mahoning County Medical Society Gives Testimonial Dinner for Dr. Skipp

Dr. William M. Skipp, Youngstown, President of the Ohio State Medical Association, was guest of honor at a testimonial dinner attended by nearly 150 of his colleagues in the Mahoning County Medical Society, at the Youngstown Club, May 8. Dr. Robert N. Poling, president of the society, presided. Three physicians who were classmates and fellow interns of Dr. Skipp had a prominent part in the celebration. Dr. James L. Fisher, Youngstown, was the toastmaster. Dr. Edward M. Feiman of Canton, recalled "that 'Bill' was a bear for work in his college days," and Dr. Paul J. Fuzy of Youngstown, recounted several amusing incidents of Dr. Skipp's intern days. Dr. O. J. Walker of Youngstown, president-elect of the Mahoning County Medical Society, traced the career of the honored guest in the work of organized medicine, including his election to The Council of the Ohio State Medical Association in 1935 and his subsequent elevation to the presidency. On behalf of the members of the society, Dr. Fisher presented Dr. Skipp with a gold watch, suitably engraved, in commemoration of the occasion. In response, Dr. Skipp expressed his deep appreciation for the thoughtfulness of his associates. Guests at the dinner included Dr. D. W. Hogue, Springfield; Dr. George F. Swan, Cambridge, and Dr. R. L. Rutledge, Alliance, members of The Council of the Ohio State Medical Association.

Coming Meetings

American Medical Association, New York, June 10-14

American Association for the Study of Trauma, Atlantic City, June 7-8.

American Association for Thoracic Surgery, Cleveland, June 6-8.

American Association of Genito-Urinary Surgeons, Skytop, Pa., June 20-22.

American Broncho-Esophagological Association, New York, June 5.

American College of Chest Physicians, New York, June 8-10.

American College of Radiology, New York, June 12.

American Gastro-Enterological Association, Atlantic City, June 10-11.

American Gynecological Society, Quebec, Canada, June 17-19.

American Heart Association, New York, June 7-8.

American Laryngological, Rhinological and Otolological Society, New York, June 6-8.

American Medical Women's Association, New York, June 9-10.

American Neurological Association, Rye, N. Y., June 5-7.

American Ophthalmological Society, Hot Springs, Va., June 3-5.

American Physiotherapy Association, New York, June 23-28.

American Public Health Association, Detroit, October 8-11.

American Proctologic Society, Richmond, Va., June 9-11.

American Radium Society, New York, June 10-11.

American Rheumatism Association, New York, June 10.

American Society of Clinical Pathologists, New York, June 6-10.

American Therapeutic Society, New York, June 7-8.

American Urological Association, Buffalo, N.Y., June 24-27.

Association for the Study of Internal Secretions, New York, June 10-11.

Association of Military Surgeons of the United States, Cleveland, Oct. 10-12.

Interstate Postgraduate Medical Assembly, Cleveland, October 14-18.

National Gastro-Enterological Association, New York, June 4-6.

National Tuberculosis Association, Cleveland, June 3-6.

Ohio Public Health Association, Cleveland, June 5.

Dr. J. J. Marek, Cleveland, Wins Golf Championship for the Fourth Time in Tournament at Cincinnati, May 13

BY GEORGE W. COOLEY, TOLEDO,
Secretary, Ohio State Medical Golfers' Association

THE 20th Annual Tournament of the Ohio State Medical Golfers' Association was held at the Kenwood Country Club, Cincinnati, May 13, immediately preceding the 94th Annual Meeting of the Ohio State Medical Association.

It was a warm, windy day, and the course was laid out in the midst of one of Cincinnati's hilly sections. The tournament got off to a fine start early Monday morning and by 10:00 o'clock it looked as if there would be a record-breaking attendance. Over 70 out-of-town golfers, mostly from cities quite some distance from Cincinnati, teed off in the morning, but with the failure of a large crowd of Cincinnatians to appear, the total number entering the tournament was below 90.

Dr. J. J. Marek, Cleveland, won the Championship Trophy with 112 strokes for the 27 holes. His 34, or 2 below par, on the second nine, was one of the lowest ever to be recorded in an association tournament. This is the fourth time that Dr. Marek has been crowned champion of the Association, and the 1940 victory gives him the first leg on a beautiful, new trophy donated by the Coca-Cola Company. Dr. W. A. Welsh and Dr. J. A. Rogers, both of Youngstown, were tied for second place with a low gross of 117 strokes.

OTHER PRIZE WINNERS

The John P. DeWitt Memorial Trophy (best 18 holes—gross score) went to Dr. D. R. Printz, Lima, and second and third places to Dr. Louis Mark and Dr. H. F. Fulton, both of Columbus. The Mills Restaurant Trophy (first 18 holes—gross score—36 to 45 years of age, inclusive) was won by Dr. E. J. Wenaas, Youngstown. Dr. J. Zeigler and Dr. H. H. Shook, both of Cincinnati, tied for second place. The Ohio State Medical Journal Trophy (27 holes—up to 35 years of age, inclusive) wound up in a three-way tie between Dr. C. M. Larrick, Columbus; Dr. W. E. Yingling, Lima, and Dr. R. E. Hatfield, Cincinnati. The draw for places gave Dr. Larrick first, and Dr. Yingling and Dr. Hatfield second and third, respectively. The Buckeye Union Casualty Company Trophy (first 18 holes—low net—46 to 55 years of age) was won by Dr. E. M. Kauffman, Kent; with Dr. J. E. Talbot, Lima, second, and Dr. E. P. McNamee, Cleveland, third.

YOUNGSTOWN TAKES CITY TROPHY

The five-man team from Youngstown composed of Dr. W. A. Welsh, Dr. E. J. Wenaas, Dr. J. P. Harvey, Dr. J. Gross, and Dr. J. A. Rogers took an easy victory over the teams from Cincinnati,

Cleveland, Columbus, and Toledo for the S. J. Coulter Team Trophy. This gives Cleveland, Toledo, and Youngstown each one leg towards the permanent possession of the trophy. The Senior Event Mead Johnson Trophy was won by Dr. I. P. Seiler, Piketon. The President's Trophy, a beautiful silver pitcher given by Dr. Gallagher, retiring President of the Association, was won by Dr. J. G. Anderson, Lynchburg. Dr. H. E. Wilkinson, Van Wert; Dr. W. D. Inglis, Columbus; Dr. E. C. Yingling, Lima; Dr. R. L. Tecklenberg, Lima; Dr. A. N. Wiseley, Jr., Lima, all tied for second position and were each awarded prizes. Other prizes were won by:

A. K. Howell, Springfield; J. J. Harrison, Napoleon; J. P. Harvey, Youngstown; A. C. Smith, Wooster; R. C. Young, Toledo; L. R. Siefferman, Harrison; J. J. Marek, Cleveland; E. P. McNamee, Cleveland; T. A. Willis, Cleveland; F. T. Gallagher, Cleveland; O. H. Baumes, Cincinnati; H. W. Hague, Akron; J. Rossen, Cleveland; A. B. Hendricks, Cincinnati; T. H. Brown, Toledo; A. A. Brindley, Toledo; R. D. Myers, Columbus; C. H. Moore, Cincinnati; L. D. Allard, Portsmouth.

The local committee deserves a lot of credit for the splendid prize list and for the excellent food and entertainment both at the luncheon and at the banquet.

BUSINESS SESSION HELD

The business meeting in the evening was enlivened by a free-for-all discussion concerning the feasibility of eliminating "the three years for possession" idea with respect to all trophies. It was finally voted that all future trophies, whether new or to replace others that have been won, should be given to the individual winning them for permanent possession. The Nominating Committee appointed by Dr. Gallagher presented the following list of nominations:

President—E. C. Yingling, M.D., Lima; First Vice-President—D. C. Brennan, M.D., Akron; Second Vice-President—Valloyd Adair, Lorain; Third Vice-President—J. J. Marek, M.D., Cleveland; Fourth Vice-President—R. E. Hatfield, M.D., Cincinnati; Fifth Vice-President—T. H. Brown, M.D., Toledo; Secretary-Treasurer—Geo. W. Cooley, Toledo.

After the nominations were read, the President asked for a vote on the entire list. The nominations were approved unanimously.

Dr. Gallagher announced that the A.M.A. would meet in Cleveland in 1941 and, therefore, no plans would be made for a state golf tournament.

Radio Broadcasts, Arranged by Bureau of Public Education, Among the Outstanding Attractions of Annual Meeting

TWELVE times during the three days of the 94th Annual Meeting in Cincinnati the radio audience heard authoritative and interesting discussions of various topics in the fields of health and medical care. These 12 interview-type radio programs, an important public relations adjunct of the State Association's Annual Meeting, were arranged by Richard A. Aszling, Director of the Bureau of Public Education, and participated in by physicians and staff announcers from Cincinnati's five radio stations.

Informative material on medical economics as well as health education comprised the subject matter of the programs. Educational directors of Stations WLW, WSAI, WKRC, WCKY, and WCPO collaborated with the Director of the Bureau of Public Education in the selection of topics and speakers. As far as was feasible, physicians who appeared on the Annual Meeting program were asked to participate in the radio project.

ONE WAS CANCELLED

Thirteen programs were originally scheduled, but health education had to bow to the exigencies of national defense when President Roosevelt broadcast his appeal for increased armaments and it was made available to every radio station in America. Two of the State Association's medical programs had been scheduled for the hour of the Roosevelt speech; one was set for a later hour, and the other was necessarily cancelled.

Two of the 12 broadcasts were "ad libbed" or impromptu. At 5:15 p.m. Tuesday, May 14, a portable microphone from WSAI was set up in the exhibit halls, and Dr. Claude B. Norris, chairman of the Committee on Scientific Work, and Dr. Carl A. Wilzbach, chairman of the radio arrangements committee, discussed the educational exhibits of public interest for 15 minutes. At 6 p.m. the same day, Dr. Parke G. Smith, President of the State Association, and Dr. Jonathan Forman, Editor of *The Journal*, spent 15 minutes in a discussion with a staff announcer of twentieth century advances in medical science. This program was broadcast by WLW, one of the most powerful transmitters in the United States. Officials of the two stations later commended these four physicians for their able impromptu presentations.

BUREAU PREPARES INTERVIEWS

Manuscripts for all but the impromptu broadcasts were prepared by the Bureau of Public Education. Each of the participating physicians submitted a brief outline of the points he wanted to emphasize in his broadcast, and those points

were written into 15-minute informal, conversational dialogues between the physicians and the announcers.

At 3:15 p.m. Tuesday, Dr. Forman discussed "Food Allergy" over WCKY, and at 10 p.m. the same day, Dr. Smith appeared before the microphone of WKRC with a discussion of the facilities for medical care in Ohio, both private, public, and institutional.

Dr. George Malley, Zanesville, pediatrician and a speaker before the Section on Pediatrics, talked on "Child Health" at 1:15 p.m. Wednesday over WCPO, and at 2:30 p.m. Dr. Clyde L. Cummer, chairman of the State Association's Committee on Education, discussed "How the Doctor Keeps Up with Medical Progress" over Station WKRC.

GUEST SPEAKER PARTICIPATES

Three programs were carried Wednesday evening over Station WSAI. At 5:15 p.m. Dr. Ralph R. Mellon, of Pittsburgh, a guest speaker before a General Session, was interviewed on the subject, "The So-Called Miracle Drugs," and at 7:15 p.m. Dr. Sidney E. Wolpaw, of Cleveland, who discussed diagnosis of pulmonary tuberculosis at a General Session, spoke on "Wiping Out Tuberculosis." At 9:30 that evening, Dr. George T. Harding, a Franklin County delegate, discussed "Modern Attitudes Toward Mental Illness."

Dr. Ralph M. Watkins, of Cleveland, leader of the round-table conference on reducing appendicitis mortality, was to have discussed appendicitis from the public viewpoint at 1:15 p.m. Thursday, but this conflicted with the President's message and the impossibility of finding another time at the convenience of both Dr. Watkins and the station forced cancellation of this program. The program of Dr. Ralph Waters, of Madison, Wis., General Session speaker on anesthesia, was postponed from 1:00 p.m. Thursday until 10 o'clock that night. His discussion of the use of barbiturates was broadcast over WKRC.

EXCELLENT PUBLIC RELATIONS

WSAI broadcast an interview with John A. Toomey, of Cleveland, speaker before the Section of Medicine, on "Infantile Paralysis" at 5:15 p.m. Thursday, and at 8 p.m. Dr. Robert T. Allison, Jr., of Akron, member of the Committee on Medical Service Plans, discussed "Efforts Toward Equitable Distribution of Medical Care" over the same station.

Results of this unusual cooperative effort by the radio stations and the Bureau of Public Education are considered decidedly gratifying. Aside from the timeliness and the educational value of the 12 programs broadcast during the Annual

Meeting there is the lasting value of closer relations between the Ohio State Medical Association and the staffs of five prominent Ohio radio stations as well as a solid groundwork on which future radio programs may be based.

The scripts of the 11 rehearsed broadcasts are available for loan to county societies which wish to adapt them for use in broadcasts over local radio stations. They may be obtained from the State Headquarters Office, and the Bureau of Public Education will be glad to assist in adapting them to local circumstances.

Hospital Building Bill Re-Written; Pending on Senate Calendar

Up to the time the June issue of *The Journal* went to press, the United States Senate had not acted on S. 3230, the hospital construction proposal, reported favorably on April 30 by the Committee on Education and labor after extensive amendments had been made.

In its May 11 issue, *The Journal of the American Medical Association* made the following observations regarding the amended proposal:

"The committee retained some of the provisions of the original Wagner-George bill, inserted some of the provisions of the Taft plan, and added other provisions of its own. Some of the suggestions advocated by representatives of the American Medical Association and of hospital associations are found in the reported bill. The National Advisory Hospital Council will assume a more important role than was contemplated in the original Wagner-George bill only during the first year of the operation of the program, for only with respect to application for hospital projects to be undertaken with appropriations to be made available during that year will the approval of the council be necessary.

"Grants for maintenance are contemplated if the financial resources of the applicant are insufficient to maintain and operate the hospital adequately. During the first year of the operation of the program, the bill proposes that hospital projects shall be financed by the federal government and leased to the applicant, the title to such projects eventually being conveyed to the lessee. After the first year, federal grants will be made available for five years to assist applicants to construct hospital facilities, the title to which shall remain in the applicant.

"The bill still leaves in considerable doubt what disposition shall be made of hospital projects the leases for which shall have been canceled, but the fact that grants for maintenance are contemplated may minimize the probability of lease cancellations. The definition of the term 'hospital' included in the bill is a synthetic one and raises the question as to whether hospitals constructed under the bill are to enter

into the practice of medicine; one does not ordinarily consider a hospital as including health, diagnostic or treatment centers, the equipment thereof, and facilities relating thereto. The fact that additions to existing hospital facilities, as well as the building of new hospitals, will be possible under the reported bill constitutes an improvement over the original proposal. As previously pointed out in *The Journal*, this federal program for hospital construction places a grave responsibility on the Surgeon General of the Public Health Service, but that responsibility can well be shared with the National Advisory Hospital Council, particularly if the members selected by the Surgeon General with the approval of the Federal Security Administrator actually include leading medical and scientific authorities who are outstanding in matters of hospitals and other public services.

"The Senate Committee on Education and Labor in reporting this bill, said that the hospital building program was only a step toward the solution of health problems which have received the attention of the committee for the last several months. The program is designed to fit into a more comprehensive plan being formulated by the committee."

Cleveland Academy and Public School Officials Sponsor Health Program

A health program in which the Cleveland Academy of Medicine will cooperate with Cleveland public school teachers in bringing up-to-date health education to school children is being arranged by local school officials and the Committee on Health Education of the Academy. The plan, as announced by Dr. M. Paul Motto, chairman of the committee, provides for a course to be given by academy members to bring teachers the latest developments in various fields of medicine and for lectures to school children by academy members. Topics suggested for discussion are personal hygiene; physiology, anatomy; respiratory diseases; digestive disturbances; disturbances common to eye, ear, nose and throat; common skin disorders; simple orthopedic troubles; social diseases, and dental health. Tentative plans call for broadcasts by academy members to science classes, certain lectures to be designated especially for girls and others for boys. At first the program will apply to senior high schools only. It is planned to extend it gradually to junior high schools and then to the elementary schools.

The first step in the new cooperative program between the schools and the academy was taken April 24, when Dr. Harry C. Rosenberger lectured on "Sense and Nonsense About Sinuses" at John Marshall High School. On April 26, Dr. Charles E. Kinney gave a talk on "Conserving Your Hearing", at James Ford Rhodes School.

Many Ohio Physicians Will Take Part in New York Session of A.M.A., June 10-14; Features of Program Reviewed

A LARGE delegation of Ohio physicians is expected to attend the Ninety-First Annual Session of the American Medical Association, June 10-14, when the A.M.A. returns to New York City for the first time since 1917.

The House of Delegates will convene at 10 A.M., Monday, June 10, at the Waldorf-Astoria. General scientific meetings are scheduled for Monday afternoon, Tuesday morning and afternoon. These include a special program by a group of New York physicians and a symposium on chemotherapy. Official opening of the Scientific Assembly will take place at a general meeting, Tuesday evening, Grand Ballroom, Waldorf-Astoria, at which Dr. Nathan B. Van Etten, New York, will be installed as President, and give his presidential address. Speakers at this session include Governor Herbert H. Lehman of New York, and Hon. F. H. LaGuardia, Mayor of New York City.

SECTIONS START WEDNESDAY

Section meetings will be held Wednesday, Thursday and Friday, June 12, 13 and 14. The accompanying box gives a complete schedule of meeting places.

The following sections will convene at 9 A.M. each day: Surgery, General and Abdominal; Ophthalmology; Pediatrics; Pharmacology and Therapeutics; Nervous and Mental Diseases; Dermatology and Syphilology; Gastro-Enterology and Proctology; Radiology.

Convening at 2 P.M. each day will be the following sections: Practice of Medicine; Obstetrics and Gynecology; Laryngology, Otology and Rhinology; Pathology and Physiology; Preventive and Industrial Medicine and Public Health; Urology; Orthopedic Surgery; Miscellaneous Topics; Session on Anaesthesia.

REGISTRATION AT GRAND CENTRAL PALACE

Registration Bureau, General Headquarters, Scientific Exhibit, Technical Exhibits, Information Bureau and Branch Post Office will be located at the Grand Central Palace. Members of the House of Delegates may register at the Waldorf-Astoria.

Only Fellows of the American Medical Association are permitted to register for the Scientific Assembly. Members of the Ohio State Medical Association who are not Fellows of the A.M.A., and who wish to attend the New York session will be permitted to register upon presentation of their 1940 membership card in the State Association and upon the signing of

an application for Fellowship in the A.M.A. Fellowship dues are \$8 annually, which includes a subscription to *The Journal of the A.M.A.*

The official program for the New York session appeared in the May 4 issue of *The Journal of the A.M.A.*, pages 1755-1806. A schedule of hotel rates and accommodations is published on page 88 of the back advertising section of the same issue.

OHIO'S REPRESENTATIVES

The Ohio State Medical Association will be represented in the House of Delegates by Dr. Barney J. Hein, Toledo; Dr. Chas. E. Kiely, Cincinnati; Dr. Claude B. Norris, Youngstown;

The New York World's Fair has arranged two special days—Friday and Saturday, June 14 and 15, for visiting members of the American Medical Association. Special admission arrangements have been made, details of which will be available at the Convention's headquarters. Members of the House of Delegates will be entertained at the Fair Monday, June 10.

Dr. Ben R. McClellan, Xenia; Dr. E. R. Brush, Zanesville; Dr. Carl R. Steinke, Akron; and Dr. John B. Alcorn, Columbus.

Dr. Clyde L. Cummer, Cleveland, member of the Committee on Scientific Assembly of the A.M.A., is a member of the House of Delegates, representing the Section on Dermatology and Syphilology, and Dr. Russell L. Haden, Cleveland, will represent the Section on Pharmacology and Therapeutics.

Other Ohio physicians who will participate in the activities of the session as members of important standing committees or official agencies are: Dr. Geo. Edw. Follansbee, Cleveland, chairman of the Judicial Council; Dr. Torald Sollman, Cleveland, chairman, and Dr. Harold N. Cole, Cleveland, member of the Council on Pharmacy and Chemistry; and Dr. Tom D. Spies, Cincinnati, member of the Council on Foods.

Officers of scientific sections include the following Ohioans: Dr. Derrick Vail, Cincinnati, secretary, Section on Ophthalmology; Dr. Haden, Cleveland, member of executive committee, Section on Pharmacology and Therapeutics; Dr. Carl J. Wiggers, Cleveland, vice chairman, Section on Pathology and Physiology;

MEETING PLACES AT N. Y. SESSION OF A.M.A.

House of Delegates: Basildon and Jade Rooms of The Waldorf-Astoria, Park Avenue and 50th Street.

Opening General Meeting: Grand Ballroom of The Waldorf-Astoria, Park Avenue and 50th Street.

General Scientific Meetings: Grand Ballroom of The Waldorf-Astoria, Park Avenue and 50th Street, and Grand Ballroom of The Commodore, Lexington Avenue and 42nd Street.

General Headquarters Scientific Exhibit, Registration Bureau, Technical Exhibits, Information Bureau and Branch Postoffice: Grand Central Palace, Lexington Avenue between 46th and 47th Streets.

SECTIONS OF SCIENTIFIC ASSEMBLY

Practice of Medicine: Grand Ballroom of The Waldorf-Astoria, Park Avenue and 50th Street.

Surgery, General and Abdominal: Grand Ballroom of The Commodore, Lexington Avenue and 42nd Street.

Obstetrics and Gynecology: Grand Ballroom of The Commodore, Lexington Avenue and 42nd Street.

Ophthalmology: Grand Ballroom of The Roosevelt, Madison Avenue at 45th Street.

Laryngology, Otology and Rhinology: Grand Ballroom of The Roosevelt, Madison Avenue at 45th Street.

Pediatrics: Grand Ballroom of The Waldorf-Astoria, Park Avenue and 50th Street.

Pharmacology and Therapeutics: Music Room of The Biltmore, Madison Avenue and 43rd Street.

Pathology and Physiology: Music Room of The Biltmore, Madison Avenue and 43rd Street.

Nervous and Mental Diseases: Ballroom of The Biltmore, Madison Avenue and 43rd Street.

Dermatology and Syphilology: West Ballroom of The Commodore, Lexington Avenue and 42nd Street.

Preventive and Industrial Medicine and Public Health: Hendrik Hudson Room of The Roosevelt, Madison Avenue at 45th Street.

Urology: West Ballroom of The Commodore, Lexington Avenue and 42nd Street.

Orthopedic Surgery: Ballroom of The Biltmore, Madison Avenue and 43rd Street.

Gastro-Enterology and Proctology: Hendrik Hudson Room of The Roosevelt, Madison Avenue at 45th Street.

Radiology: East Ballroom of The Commodore, Lexington Avenue and 42nd Street.

Miscellaneous Topics, Session on Anesthesia: East Ballroom of The Commodore, Lexington Avenue and 42nd Street.

Dr. John T. Murphy, Toledo, secretary, Section on Radiology.

PROGRAM PARTICIPANTS

Ohio physicians scheduled to take part in scientific sessions as speakers or discussants include: Dr. Haden, Dr. Albert D. Ruedemann, Dr. John A. Toomey, Dr. E. N. Collins, Dr. H. R. Rossmiller, Dr. Wiggers, Dr. Gerard A. DeOreo, Dr. James R. Driver, Dr. Herbert H. Johnson, Jr., Dr. James A. Dickson, Dr. Claude S. Beck, Cleveland; Dr. Richard D. Bryant, Dr. John Gwyn Fleming, Dr. Henry Lynde Woodward, Dr. A. R. Vonderahe, Dr. Joseph A. Freiberg, Dr. Leon Schiff, Dr. Richard J. Stevens, Dr. Harold K. Moss, Dr. William B. Bean, Dr. Spies, Cincinnati; Dr. Harold R. Conn, Akron; Dr. Edward R. Thomas, Dayton; Dr. C. F.

Pritchett, Columbus; Dr. Bernhard Steinberg, Toledo.

Among those participating in the Scientific Exhibit are the following from Ohio: Dr. Harold N. Cole, Dr. Gerard DeOreo, Dr. James R. Driver, Dr. Herbert Johnson and Dr. Walter Schwartz, Cleveland; Dr. David I. Abramson and Dr. Fanny I. Senior, May Institute for Medical Research, Jewish Hospital, Cincinnati; Dr. Bernhard Steinberg, Department for Medical Research, Toledo Hospital, Toledo.

SPECIAL FEATURES

There will be several features of special interest in the Scientific Exhibit, in addition to groups of exhibits sponsored by various sections in the Scientific Assembly. There will be three special exhibits on fractures, lame

backs and fresh pathology. An exhibit symposium on heart disease will be presented in cooperation with the American Heart Association.

Dr. Paul A. Davis, Akron, is the representative to the Scientific Exhibit from the Section on Preventive and Industrial Medicine and Public Health, and Dr. Derrick Vail, Cincinnati, is a member of the section exhibit committee of the Section on Ophthalmology.

Included in the membership of the advisory committee on the special exhibit on lame backs are Dr. Theodore Willis, Cleveland, and Dr. E. Harlan Wilson, Columbus. The following Ohioans are on the list of demonstrators for this exhibit: Dr. James A. Dickson, Dr. Maxwell Harbin, Dr. Clarence H. Heyman, Cleveland; Dr. W. Richard Hochwalt, Dayton; Dr. Joseph A. Freiberg, Cincinnati.

Headquarters of the Woman's Auxiliary will be at the Hotel Pennsylvania. All physicians' wives, whether auxiliary members or not, and their guests are cordially invited to attend the sessions of the Auxiliary and participate in the social functions which have been arranged. All are asked to register at the registration desk on the Ballroom Floor of the Hotel Pennsylvania.

GOLF TOURNAMENT

The American Medical Golfing Association will hold its twenty-sixth annual tournament at Winged Foot Golf Club, Mamaroneck (Westchester County), New York, on Monday, June 10. Members may tee off from 7:30 A.M. to 2:00 P.M. Thirty-six holes of golf will be played in competition for over 50 prizes and trophies in eight events. All male fellows of the American Medical Association are eligible to join the A.M.G.A., which now totals 1,565 members, representing every state in the Union. Living past-presidents include Dr. Thomas Hubbard, Ashtabula, and Dr. Charles Lukens, Toledo. Participants in the A.M.G.A. tournament are required to present their home club handicap, signed by the club secretary, at the first tee on the day of play. No handicap over 30 is allowed. Application blanks for membership in the Golfing Association can be obtained by writing the executive secretary, Bill Burns, 2020 Olds Tower, Lansing, Michigan.

Dental Society Makes Survey

The Economics Committee of the American Dental Association sponsored a nation-wide survey of the dental needs of the adult population during the week of May 27-June 1. Forty thousand cards were distributed in 30 states upon which data was to be recorded, as disclosed in the examinations by 8,000 dentists of their own patients in their own offices. The territory included was determined on the basis of population, race, industry and economic conditions.

Public Health Officials Convene at Columbus May 24

The Ohio Federation of Public Health Officials held its annual convention at the Deshler-Wallick Hotel, Columbus, Friday, May 24. The program was arranged by Dr. H. H. Pansing, Dayton, Montgomery County health commissioner, president of the Federation, and the secretary, Dr. W. D. Bishop, Greenville, health commissioner of Darke County.

Dr. J. A. Carter, Batavia, Clermont County health commissioner, presided at the section meeting for health commissioners. Speakers were Dr. C. J. Baldrige, Hamilton, health commissioner of Butler County, whose address was on the subject, "Bedside Maternity Service for Counties", and Dr. H. C. Stewart, tuberculosis coordinator, City of Cleveland, Division of Health, who spoke on "Familial Tuberculosis".

Willis R. Aukland, sanitary engineer, was chairman of the Sanitarian's Section. Walter Snyder, chief of the Food and Sanitation Division of the Toledo Department of Health, discussed "Restaurant Sanitation in Toledo". Homer Knox, assistant engineer, Division of Sanitary Engineering, State Department of Health, spoke on "Swimming Pool Design and Operation".

Mary I. Breneman, R.N., was chairman of the Nurse's Section, which was devoted to a discussion of "Venereal Disease Nursing as Part of a Public Health Program". Speakers were: Anne Burns, State Department of Health, "What Is Venereal Disease Nursing in a Public Health Program?"; Sara M. Hall, Belmont County health department, St. Clairsville, "The Nurses Part in a Venereal Disease Program Without Clinic Facilities"; Mrs. Frances G. McCord, Cincinnati Board of Health, "Venereal Disease Nursing in a Community with Clinic Facilities and a Follow-Up Program".

Dr. Pansing presided at the afternoon general session, which was addressed by Dr. R. H. Markwith, State Director of Health, and Dr. Henry F. Vaughan, health commissioner of the City of Detroit, who discussed "The Community Responsibilities of the Public Health Official".

The meeting adjourned following a business session and reports of committees.

Dayton—"Skin Cancer" was the topic discussed by Dr. Harry A. Nieman at a meeting of the Piqua Roundtable Club.

Columbus—Dr. Arthur W. Thomas of the staff of the State Department of Health, spoke on "Juvenile Delinquency", at a meeting of the Bellefontaine Kiwanis Club.

Cincinnati—"Medical Service Plans for the Low Income Groups", was the subject of an address made by Dr. Parke G. Smith, President, Ohio State Medical Association, at a meeting of the Knights of Columbus Luncheon Club.

Do You Know - - -

Dr. R. R. Hendershott, Tiffin, President of the Ohio State Medical Association in 1936, and delegate to the 94th Annual Meeting at Cincinnati from the Seneca County Medical Society, was the first member to get his badge when the Registration Headquarters opened, Tuesday morning, May 14.

* * *

A special study of enteritis will be made in Cincinnati this Summer by the City Board of Health in cooperation with local physicians.

* * *

Creation of a medical scholarship amounting to \$300 per year, from the Comly Fund, was recently announced by Dr. J. H. J. Upham, dean, Ohio State University, College of Medicine.

* * *

A Pan-American Congress of Ophthalmology will be held in Cleveland, October 11-12, immediately following the annual meeting of the American Academy of Ophthalmology and Otolaryngology.

* * *

Invitations have been sent to 2500 graduates of the University of Cincinnati College of Medicine to attend the annual reunion of the Alumni Association of the College at Cincinnati, Thursday, June 6.

* * *

Dr. Tom D. Spies, Cincinnati, and Dr. Harry Goldblatt, Cleveland, were elected to membership in the Association of American Physicians at its recent meeting in Atlantic City.

* * *

The greatest authorities on the various phases of medicine and surgery, formerly found in France, Germany and Austria, are now found in the United States, Dr. Richard B. Cattell, Boston, Mass., a guest speaker at the Cincinnati meeting, told Mt. Union College students at Alliance in a chapel talk May 13. Dr. Cattell graduated at Mt. Union in 1921.

* * *

Members of the Columbus Academy of Medicine and local newspapermen joined in "a care-free evening of fellowship and good cheer" at the Columbus Press Club, Tuesday evening, May 7.

* * *

More residents were married in New York State in 1939 than during the previous year, despite the stringent marriage laws and the requirement of a test for syphilis which became effective July 1, 1938. A notable effect was the reduction of non-residents married in New York State, who in 1939 totaled 1,711, as compared with a peak of 23,521 in 1936.

The Cadaceus has been in use in the Medical Department of the United States Army since 1856, when it appeared on the chevrons of hospital stewards. It was adopted as the official insignia of the Medical Department in 1902 prior to which time the maltese cross was used.

* * *

Following a report of the Permanent Home Committee of the Cincinnati Academy of Medicine that the former Columbia Life Insurance Company property is suitable for Academy purposes, the Council of the Academy decided that members of the Academy will be given an opportunity to vote (a) whether they want a permanent home for the Academy; (b) whether they would be willing to pay an annual increase in dues of \$15 for the maintenance of such a home.

* * *

Physicians in England are not subject to conscription. In France and Germany every physician of military age has by compulsory conscription joined the army, navy or air force.

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An investigation into the needs for increased institutional facilities for the care of chronics and convalescents is being conducted by the Research Committee of the Cleveland Welfare Federation, under the guidance of a working committee representing various health and welfare organizations.

* * *

Dr. Drew L. Davies, Columbus, chairman of the Franklin County Red Cross, was a participant in a round-table conference at the National Convention of the American Red Cross at Washington the week of May 5, discussing the subject, "Value of First-Aid in Accident Prevention as Demonstrated in Franklin County, Ohio".

* * *

The April issue of "The Wisconsin Medical Journal" was dedicated to Dr. William C. Woodward, who retired January 1, 1940, after 18 years as Director of the Bureau of Legal Medicine and Legislation of the American Medical Association.

* * *

Of 165,576 total admissions to U. S. Veterans' hospitals during 1939, over 92 per cent were for disabilities not connected with war service.

* * *

A seven year survey of the incidence of tuberculosis in New York City conducted by the City Health Department indicates that about 2.5 per cent of the population is afflicted with the disease and that about 85 per cent of those so afflicted are unaware of the fact.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Those members of the Ohio State Medical Association who have felt for some time that the medical profession should sponsor concrete professional and practical programs in an effort to assist those of the low-income group with their health and medical

Enabling Proposal Receives Approval of House of Delegates

problems, should be pleased with the action of the House of Delegates at the 94th Annual Meeting in Cincinnati, endorsing without a dissenting vote a recommendation that the Association sponsor enabling legislation which will make possible the organization by the medical profession of agencies through which medical care may be distributed on a voluntary prepayment basis.

With the backing of the House of Delegates, officers and committees of the Association, who have worked diligently on this question during the past two and one-half years and will have the responsibility for leading up to future activities, should be able to prosecute vigorously a public education campaign which will bring ultimate success.

Obviously, the action of the House of Delegates is but the first step. Much work lies ahead. The active support of every member of the Association must be enlisted for the enabling proposal as well as the active help of other groups and organizations—in fact, the public at large.

All readers of *The Journal* are urged to read carefully the statement on this question presented by The Council to the House of Delegates, which appears as a part of the proceedings of the first session of the House of Delegates, published in this issue of *The Journal*. Time and space will not permit more details on the subject at this time but from time to time *The Journal* will publish material relating to it for the information of all members.

An idea as to the reaction of the public toward the progressive stand which has been taken by the House of Delegates, speaking for the Association, is manifested in the following editorial published in the *Cincinnati Post* on May 16:

"The House of Delegates, governing body of the Ohio State Medical Association, has taken a wise position by deciding to ask the Ohio Assembly to approve legislation permitting voluntary prepaid medical service groups to be organized in this state.

"The medical men have their choice of two policies. One, as some doctors are foolishly doing,

is to denounce the very suggestion as 'communist' and 'subversive.' The other is to take heed of the growing public interest (hardly a demand as yet) in this question of spreading the burden of cost of medical care and attempt to provide a workable and equitable solution.

"If any large number of citizens become convinced that there are better methods of paying for and insuring medical service for themselves and their families, it is not likely they will be frightened by name-calling.

"The doctors who propose to meet this situation in an intelligent and cooperative manner are serving both their profession and their patients."

The success of our present and future plans of medical practice will depend in the final analysis on the interest and activity of the officers, the committees and the members in each County Society.—From the annual report of LeRoy A. Wilkes, M.D., executive officer, The Medical Society of New Jersey.

Every physician who can get his hand on a copy of the May, 1940, issue of *Nation's Business*, official publication of the United States Chamber of Commerce, should read the special feature, "The Case for Private Medicine".

*Nation's Business
Presents "The Case
for Private Medicine"* It is the fifth of a series of articles being published by that magazine on "free enterprise against dictatorship". To say that it is well-done, informative and a smashing argument against government-controlled medicine is putting it mildly. It should be an eye-opener to business men, big and little—those who will foot the gigantic bill if and when government takes over the job of running the healing arts.

Some idea as to the tone of the article is found in the preface entitled, "Give the Doctors a Hand!" reading as follows:

"This is the day of superficial survey, the short-cut solution, the infallible formula, the half-truth, the wisecrack rejoinder, the pat analogy, the argument *ad hominem*, *ad nauseam*. Any counterfeit reasoning passes as sound currency of thought if only it has some ring of humanitarian theory. In Washington and elsewhere young intellectuals speaking the dialectic of a long discredited German fanatic rebuke the 'reactionary' ideas of their betters.

"In this country, they will tell you, we have all the resources and the scientific knowledge

necessary to abolish pain and death from the world. They need only to be used. But, according to this silly syllogism, a dark conspiracy by entrenched 'interests' prevents the full employment of life-saving science.

"Inevitable, then, that there should be hauled out the most ubiquitous, most infallible of all formulas in this mad decade: Let political agencies take over the distribution of the boons of medical science. With Government's unlimited power to tax, death can be routed.

"But men of science object that politics has usually been an enemy of science, that there is an irreconcilable conflict between the method of science and the method of politics.

"Then observe the argument *ad hominem*: 'those who oppose our great-hearted plans belong to the medical trust. Believe them not.'

"To clinch the point, there is adduced the argument by pat analogy: 'Do you favor the public school system, Doctor? Do you think our schools are any good? Then, why do you oppose government running a health system?'

"When the 'social' cause is backed into a corner there is the old reliable refutation by constructive alternative:

"'You don't agree with our Great Plan; then what do you suggest in its place? Just how would you improve it?'

"Too often conservatives have been subdued by one or another of these polemical tricks. Doctors, like business men, are not trained in the art of making the worse cause appear the better. Nevertheless, they are making a courageous resistance to the march of collectivism, a fight that deserves the support of all believers in American as opposed to imported European institutions. That is why *Nation's Business* presents as the fifth of its series of articles on free enterprise against dictatorship, 'The Case for Private Medicine'.

"The doctor's job is to alleviate misery while others disclaim about it. He has learned that the healer cannot indulge in sentiment.

"As a man of science he has learned to be patient. Evolution marches slowly. Perfection always eludes the grasp of mortals because some improvement must be left to future generations. Looking back on the furrow of the past he sees that the profession of life-saving has come a long way. It has far to go yet, but Americans should be willing to leave his trained hand on the plow and reject the clamor to substitute in the place of control the man of words."

Reading the above gives one a thrill. There are other thrills in the article itself. Read it. Suggest to your friends that they read it. It should open their eyes, also, as to how far "dictocracy" has progressed in its drive to absorb the science and art of medicine, and why it must be stopped.

Dr. Hugh Cabot would have us plunge into group practice, divided responsibilities, buck passing, and all, because we are such an immoral group of individuals without principle or high standards! Boston still may be the home of the bean and the cod, but the Cabots no longer show evidence of talking only with God.—The Connecticut State Medical Journal.

"Inflated Statistics" is the appropriate title which appeared over an editorial published in a recent issue of the *New York State Journal of Medicine*, reading in part as follows:

Inflated Statistics

Just as Bad as

Rubber Dollars

"In his latest book, *Freedom and Culture*, Dr. John Dewey comments on the failure of sociologists

to apply scientific methods to the statement and solution of their problems. 'Judged by the methods of the natural sciences', he observes, 'the precedent in the social field has been pre-scientific and antiscientific.' This is nowhere more true than in the approach of lay welfare workers to the distributive problems of medical care. * * *

"The *New York Times* asks some pertinent questions about the current penchant for statistical inflation: 'In the final account does it get us on faster to paint an economic system in the darkest colors, to exaggerate the number and plight of its victims, to minimize its achievements? . . . it may be that people get frightened into a certain course of action. But in the longer test of time is man to shape his destiny by fear or by realities?'

"These questions are directly applicable to the campaign for state medicine and the 'inflated figures' of untreated sickness on which it rests."

In our opinion all statistics should be regarded with suspicion. Figures usually prove to be fickle and deceitful. In this connection we are reminded of the experience of the late E. W. Scripps, the publisher. Wanting statistics for inclusion in a series of articles to be published in his chain of newspapers, Scripps wired a statistician in Washington. He received a reply reading in effect as follows: "Can furnish statistics on either side of argument. Which side are you on?" The "old man" always cited this to his employees as a perfect example as to why too much faith cannot be placed in cold-blooded figures. Scripps is dead but his warning is just as true today as it was back in the days when the penny press crusaded for the five-cent glass of beer and the full-dinner pail.

Summit County Medical Society members were guests at the gridiron party put on recently by Akron newspaper men and found themselves the target of a little good-natured jibing in one of the newsmen's skits. The doctors' turn to smile came when Mr. John S. "Jack" Knight, publisher of the Akron Beacon-Journal, the Miami Herald, and the Detroit Free Press, was queried about the quintuplet fiasco which his Florida paper financed. He replied: "I know now what I should have done. I should have consulted the Information Committee of the Medical Society."

Before the New York State General Assembly adjourned, recently, without displaying wisdom or judgment, it enacted a bill which would have

Use of Subterfuge Not a Good Way To Win Public Confidence

Governor Lehman slapped a veto on the measure, killing an attempt to foist health insurance on that state by subterfuge.

In his veto message, Governor Lehman pointed out that addition of sick benefits would demand a complete reorganization of the unemployment insurance agency and that compulsory health insurance "should not be injected in a haphazard fashion into the unemployment insurance system which was created for an entirely different purpose".

Proponents of compulsory health insurance apparently are determined to stop at nothing in efforts to accomplish their aims. The issue should be decided on its own merits or demerits—in the open where the public may make a decision after hearing all arguments, pro and con. This question and others should not be confused. Those who try to do so in hope of achieving their goal, play fast and loose. Resort to subterfuge is in itself an admission of weakness, indicating that the crusade of the socializers is losing some of its zip.

Ohio can take off its hat once again. Not a graduate of all of Ohio's three medical schools failed in medical examinations given in the country last year.

Informative articles reflecting official attitudes and policies of the Ohio State Medical Association on health and medical questions appeared

Bureau Makes More Progress in Giving the Public the Facts

"Ohio Schools," which is circulated among 40,000 educators in the state, printed a statement on "The Health of Ohio's Youth" which was prepared by the Bureau of Public Education, and "The Ohio Parent Teacher," magazine of the Ohio Congress of Parents and Teachers, which reaches 8,500 school superintendents, librarians, and parents, carried an article on "The Child's Health" by Dr. Parke G. Smith, of Cincinnati, retiring president of the State Association.

The statement in the school publication referred to the report of the American Youth Commission and its "generally panicky tone" in reciting the health deficiencies among the present generation of youth. It outlined the methods by

which the health of Ohio's school and post-school youth is maintained and improved, and it emphasized the wisdom of continuing along lines already adopted.

Dr. Smith's article contained general advice on child health which is of value to parents. He commended the spirit of cooperation between P.-T.A. officials and medical organizations in carrying on the pre-school round-up examinations and pointed out that in any such plan the family doctor, the private practitioner of medicine, plays a key part.

Editors of both magazines expressed to the Bureau of Public Education their gratification for being able to print these authoritative statements from medical organization. Because of its value as a means of direct contact with important segments of the public, this particular type of public education will be undertaken whenever the opportunity presents itself.

"There is cause to regret Bernarr Macfadden's elimination in the Florida senatorial primaries. * * * We were anticipating the sight of the entire Senate doing setting-up exercises after opening prayers and the appearance of unhulled barley on the Senate restaurant menu * * * .
—United States News.

In a release from the United States Public Health Service, quoting an address made by Dr. Thomas Parran, surgeon general, at the recent

More Paradoxical Situations Like This Needed

conference of state health officers in Washington, this amusing paragraph appears:
"It is the custom of states" (quoting Dr. Parran) "at the beginning of the year, to encumber practically all allotted funds, but at the close of the fiscal period in some states unexpended balances of significant amounts remain in the state treasury. This discrepancy between budgets and expenditures is difficult to understand. Certainly, the need for service exists; yet programs are not sufficiently ambitious in all states to consume available funds. I should like to have your advice as to how this paradoxical situation may be remedied. Certainly, it is the intention of the Public Health Service to approve expenditure of Federal funds for any program that seems significantly sound and which gives reasonable promise of accomplishment."

We don't know what "advice" was given to Dr. Parran. We hope someone intimated that perhaps "this paradoxical situation" is the result of wisdom on the part of some health officers in not using the taxpayers' money simply because it is available but in limiting expenditures to those necessary for "sound" and "reasonable" programs. Just because the Federal Government says to a

state, "here it is; come and get it", certainly is not a good reason why that state must accept the hand-out; especially if it has to stretch a good many points to try to justify the expenditure.

Osteopath Eligible for Office of Coroner, Supreme Court Holds

An osteopath, licensed by the State Medical Board under the provisions of Section 1288 of the General Code, is a "licensed physician" within the purview of Section 2856-3, General Code, defining eligibility for the office of coroner and therefore is eligible to file as a candidate for that office, according to a decision handed down on April 24 by the Ohio State Supreme Court. (State, ex rel., Kester v. North et al, Board of Elections of Darke County, No. 28104.)

The decision of the Supreme Court, allowing a writ of mandamus to Kester, an osteopath, to compel the Darke County Board of Elections to place his name on the ballot at the primary election on May 14 which the board had refused to do, overruled an opinion issued by the Attorney General on February 26, 1940, in which the Attorney General held that an osteopath is not a licensed physician and therefore not eligible for the office of coroner. (Opinion No. 1918, published in full in the April, 1940, issue of *The Ohio State Medical Journal*, pages 456-458.)

The opinion of the court, written by Judge Myers, was as follows:

Relator, Clarence D. Kester, filed this action for a writ of mandamus to compel defendants as members of the Board of Elections of Darke County to accept and file relator's declaration of candidacy and petition as a candidate for nomination to the office of coroner on the Democratic ticket and to cause relator's name to be printed on the official Democratic ballot to be voted at the primary election on the 14th day of May, 1940. The board of elections refused to accept and file relator's declaration of candidacy and the petition attached thereto for the alleged reason that relator was not a licensed physician as required by Section 2856-3, General Code.

The sole question, therefore, is whether the relator is a licensed physician within the meaning of Section 2856-3, General Code, which reads in part as follows: "No person shall be eligible to the office of coroner in any county except a licensed physician of good standing in his profession or a person who shall have previously served as coroner prior to his election."

Respondents in their answer "admit that the relator is an osteopathic physician and surgeon, licensed by the State Medical Board of Ohio to practice osteopathy and surgery in the state of Ohio; that relator pursued the courses of study and submitted to the examinations, as alleged in his petition, and that he has deposited his license issued by the State Medical Board to practice osteopathy and surgery with the Probate Judge of Darke County, as alleged in his petition." To the answer relator filed a demurrer. The issue is thereby further narrowed down to the following question: Is an osteopathic physician and surgeon, licensed by the State Medical Board of Ohio to practice osteopathy and surgery in the

state of Ohio, a "licensed physician" within the purview of Section 2856-3, General Code?

There are scholarly discussions in the briefs about "four great schools of medicine." There are learned disquisitions on *materia medica*, therapeutics and other kindred subjects, all of which might be material, if we had the duty to distinguish between various schools of medicine. The General Assembly made no such distinctions in the law. The statute merely states a "licensed physician," or to phrase it in another way a "physician" who is "licensed." In the enactment of this statute the Legislature did not have in mind the particular qualifications of any one kind of licensed physicians. Rather the Legislature did have in mind the duties of a coroner, an office to which until then any layman could be elected. And curiously enough a person, a layman, "who shall have previously served as coroner prior to his election," may, under the statute, still be a candidate and elected to the office.

As outlined in the statutes, most of the duties of the coroner have to do not with the living but with the dead and the cause of their demise. The coroner is also the custodian of the county morgue. He has other ministerial duties which any layman could perform. Any doubt respecting the scope of a statute restricting the right of the people to choose their own officials must be resolved in favor of the electorate. Until the General Assembly, by appropriate legislation, indicates more definitely what is intended by the term, we are obliged to hold that relator is a "licensed physician" within the purview of the statute. *In Matter of Bandel v. Dept. of Health*, 193 N. Y., 133, 85 N. E., 1067; *People, ex rel. Gage, v. Siman*, 278 Ill., 256, 115 N. E., 817; *State v. Schmidt*, 138 Wis., 53, 119 N. W., 647; *State, ex rel. Walker, v. Dean*, 155 Wash., 383, 284 P., 756; *Towers v. Glider and Levin*, 101 Conn., 169, 125 A., 366, 40 A. L. R., 1263.

The demurrer to the answer will be sustained and the writ of mandamus allowed.

Writ allowed.

Weygandt, C. J., Day, Zimmerman, Williams, Matthias and Hart, JJ., concur.

Collects, Then Disappears

It has been reported to *The Journal* that a Mr. Mendenhall, representing himself as the head of a credit and collection agency purported to have headquarters in Dayton, has taken over some physicians' and merchants' accounts in Darke County for collection, obtained payments on some of the accounts, but failed to reimburse the clients. Efforts to locate Mendenhall at his rooming house were unsuccessful, and it was reported that his landlady is holding some of his property for room rent that is due her. A request to Mendenhall from a Greenville physician to call at his office for settlement of accounts collected brought no response.

Uhrichsville—Dr. J. A. McCollam was re-elected president of the Ohio Laymen's League of the Disciples of Christ Churches at the League's annual convention held recently at Wooster. Dr. McCollam presided at the annual banquet, closing evening of the sessions.

THE INORGANIC OR MINERAL ELEMENTS IN NUTRITION

"The functions of minerals are so important that they may well be said to control life itself." (1)

● With this terse statement, a recent monograph summarizes the importance of minerals in animal metabolism.

Earlier physiologists considered the following list of inorganic elements to be fairly complete as far as animal nutrition was concerned:

Calcium	Sodium	Phosphorus
Iron	Potassium	Chlorine
Iodine	Magnesium	Sulfur

However, copper, manganese, zinc, and apparently cobalt must now be added to this list of elements considered indispensable or desirable in nutrition. Also, analyses of animal tissues have disclosed the presence of the so-called "trace elements" (aluminum, silicon, arsenic, fluorine, bromine, barium, rubidium, nickel, and selenium). Which of these perform definite roles in mammalian metabolism and which are present as contaminants, future research alone can decide (2).

Although the specific functions of all the essential minerals may not be completely known, it is apparent that many of these inorganic elements—in the form of their salts or ions—are associated with vital body activities. Thus, the initiation and continuance of cardiac function, the maintenance of osmotic relationships of tissues and of the acid-alkaline balance, and the formation of bony and calcareous tissue and of hemoglobin are a few of the vital functions of the minerals (1). It should be evident that the

above quotation is in no wise an overstatement of the importance of the minerals in nutrition.

As to their occurrence in nature, the minerals are rather widely distributed in foods, although the extent to which they may occur—even in the same food variety—is known to be variable (3). No one food or class of foods has been richly endowed with *all* the elements essential in nutrition. Consequently, to insure an optimal intake of minerals the diet should be planned to include—in so far as possible—all food classes.

In the preparation of foods for the table, attention should be given to preservation of their mineral values. Because of their water-soluble nature, certain minerals may be lost to the cooking water during food preparation. Therefore, to obtain the full mineral benefits of foods, the cooking water containing the extracted minerals should in some way be utilized.

During commercial canning, food is cooked in a limited amount of water or brine while contained in the sealed can. Thus, solution losses of inorganic elements are controlled and by using the entire contents of the container the consumer will obtain all the mineral values of the food packed therein. This provision in practically all commercial canning procedures renders canned foods valuable and convenient in formulation of diets calculated to supply optimal amounts of the inorganic elements essential for complete human nutrition.

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REFERENCES

- (1) 1939. Mineral Metabolism, Alfred T. Shohl, Reinhold, New York.
- (2) 1940. Nutrition Abstracts and Reviews 9, 515.
- (3) 1938. Univ. Colorado Studies 25, 181.

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State Industrial Commission Undermanned and Inadequately Financed, Article Comparing Ohio and N. Y. Contends

ALTHOUGH doing approximately the same volume of business in 1938 as the workmen's compensation department of the State of New York, the Industrial Commission of Ohio had only 561 employees compared with 1,686 in the New York system, and had administrative expenses of \$1,435,428 in contrast to \$4,240,650 in expense incurred by the New York department, according to an article comparing the two funds, published in the April, 1940, issue of *The O. I. C. Monitor*, monthly publication of the State Industrial Commission.

The article, which was prepared by Marshall Dawson, consultant at the State Industrial Commission, who is on leave of absence from the U. S. Department of Labor, follows:

"There are not many farmers who expect one horse to do the work of three horses. A comparison of the operating load and administrative facilities of the workmen's compensation funds in New York and Ohio shows that somebody has been expecting that one employe in Ohio can do work for which three employes are hired in New York. There have been many costly 'investigations' of the Ohio fund, and from time to time deficiencies of administration are pointed out. The money might as well have been spent searching for one horse which can do the work of three horses. When this situation is frankly faced by the people of the State, a new day will dawn in the history of workmen's compensation administration in Ohio.

USED AS YARDSTICK

"The New York State Insurance Fund is the best yardstick for measuring the operating problem of the Ohio fund. The two funds have about the same volume of business. The administrative expenditures of the New York fund are watched and determined by a commission (which is actually a board of trustees) of nine members, all but one of whom are employers insured in the fund. The administrative expenses are not met by taxes, but are taken directly out of the insurance premiums, so the employers have sufficient incentive to guard against any expenditures which do not produce more than their equivalent in service. Under such conditions, it can be taken for granted that the personnel of the fund is no more than is necessary for the service that an alert and progressive insurance carrier should furnish.

"A table has been prepared which, with the explanatory notes, shows that the New York system has three employes where Ohio has one. In 1938 the New York Fund had approximately 1,386 officers and employees. To this number

should be added, as explained in foot-note 5 of the accompanying table, about three hundred additional employees, in the Department of Labor and the rating offices. For doing the work of approximately 1,686 New York employees, the Ohio fund has but 561 employees.

"One thing that has been made plain by past investigations of the Ohio fund—that the State is losing, annually, millions of dollars through limiting the work that can be done by the Ohio fund in enforcing the law, in supervising medical aid, and in prompt and expert attention to the settlement of claims. One result of the handicapping of the Ohio fund has been the very excessive growth of court litigation, which threatens to obscure the purpose for which the workmen's compensation law was passed, unless remedial steps are taken.

Comparison of Operating Load and Administrative Facilities of the Workmen's Funds of New York and Ohio. For the Calendar Year 1938.

	New York Fund	Ohio Fund	Per-cent
Employers covered	44,047 ¹	50,099 ²	113.74
Premiums earned	\$20,651,880 ³	\$16,809,362 ⁴	81.39
Losses incurred	14,240,654	17,404,798	122.22
Administrative expense	4,240,650	1,435,428	33.85
Total assets	52,032,060	61,074,353	117.38
Administrative expenses ratio	20.4	8.5	41.67
Employees and officers (approximate number)	1,386 ⁵	561 ⁵	40.48

¹ Policies in force.
² 46,062 Private employers and 4,037 public employers.
³ Including the administrative expense.
⁴ Excluding the administrative expense, with the exception of 1 per cent of premiums, for the Division of Safety and Hygiene.
⁵ The work directly done by the personnel of the New York State Insurance Fund does not cover the entire spread of service required of the Ohio Fund. To make the spread of service of the two funds comparable, it is necessary to add, to the 1,386 employees of the New York Fund about 200 of the 500 employees of the Division of Workmen's Compensation of the New York Department of Labor, and about 100 other employees engaged in actuarial or rating and statistical activities in the New York rating bureau and in the National Council on Workmen's Compensation. Measured by an equivalent spread of service required, the New York system has three employees where Ohio has but one.

Xenia—Dr. Ben R. McClellan was re-elected dean and Dr. H. C. Messenger, secretary of the Volunteer Medical and Surgical Staff of the Ohio Soldiers and Sailors' Orphans' Home.

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In Memoriam

John Bohlander, M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1883; aged 79; died April 19. Dr. Bohlander practiced in Cincinnati for 52 years. For ten years he was professor of chemistry and toxicology at the Cincinnati College of Medicine and Surgery. He was a Mason. His son and a sister survive.

Milford M. Brubaker, M.D., Troy; Eclectic Medical College, Cincinnati, 1896; aged 67; member of the Ohio State Medical Association and the American Medical Association; died April 10. Dr. Brubaker practiced in Troy for 22 years. He was previously located in Lewisburg, Gratis and Covington. Dr. Brubaker was a former president of the Ohio State Eclectic Medical Association. He was a member of the Church of the Brethren at Covington, and formerly taught a Men's Bible Class in the First Baptist Church at Troy. His widow and a brother survive.

Reginald Heber Cleary, M.D., Caldwell; Starling Medical College, Columbus, 1902; aged 65; died April 27. Dr. Cleary retired several years ago because of ill health. He had practiced medicine in Caldwell for 23 years, and was formerly located in Fallsburg. A captain in the Medical Corps of the U. S. Army during the World War, Dr. Cleary was the first commander of the American Legion Post at Caldwell. He was a member of the Church of Christ. Surviving are his widow, one son, Dr. Louis Cleary, Louisville, Ky., two daughters, two brothers and a sister.

Frank Walter Dannecker, M.D., Van Wert; Eclectic Medical College, Cincinnati, 1920; aged 47; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 20. Dr. Dannecker first practiced at St. Henry, and later opened an office at Van Wert. He was a member of the Masonic Order and the Lutheran Church. Surviving are his widow, a daughter and two sisters.

William A. Deerhake, M.D., Waupun, Wisconsin; Indiana University School of Medicine, Indianapolis, 1908; aged 54; member of the Wisconsin State Medical Society and Fellow of the American Medical Association; died April 10. Dr. Deerhake was superintendent of the Criminal Insane Institution at Waupun, Wisconsin. He formerly practiced at St. Marys, and was a member of the Auglaize County Medical Society from 1914 to 1926. During the World War, Dr. Deerhake served in the Medical Corps of the U. S. Army. He was a member of the Masonic Order. His widow, a daughter, a son and a brother survive.

John Fletcher Douthitt, M.D., Dover; Starling Medical College, Columbus, 1898; aged 65; former member of the Ohio State Medical Association and the American Medical Association; died May 6. Dr. Douthitt practiced in Dover for 42 years. His widow, a son and a sister survive.

Norman B. Ervin, M.D., Gibsonburg; University of Wooster, Medical Department, Cleveland, 1881; aged 87; died April 29. Dr. Ervin retired in 1921 after practicing in Gibsonburg for 40 years. Prominent in local affairs, he had served as president of the Board of Education. He was a member of the I.O.O.F., K. of P. and K.O.T.M. lodges. A daughter, three sons and a sister survive.

Louis John Feid, Sr., M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1893; aged 74; died April 22. Dr. Feid practiced in Cincinnati for approximately 45 years. Surviving are his widow, a daughter, a son—Dr. Louis Feid, Jr., a sister and a brother.

Francis Marion Frazier, M.D., Bryan; Fort Wayne College of Medicine, 1891; aged 82; died April 26. Dr. Frazier was a graduate in law as well as medicine, and divided his interest between the two professions. From 1892 to 1902 he practiced medicine in Bridgewater Township, Williams County; Pioneer, and Montpelier. From 1906 to 1913 he was probate judge of Williams County. Dr. Frazier then resumed the practice of medicine in Bryan. A few years ago he was elected to serve a short term as common pleas judge. Surviving are two daughters, a son—Dr. Sherman Frazier, Detroit, and a brother, Dr. Sherman S. Frazier, Angola, Indiana.

William Dyer Gardner, M.D., Plain City; Starling Medical College, Columbus, 1900; aged 65; died April 30. Dr. Gardner practiced in Plain City for 40 years. His widow survives.

Paul Emerson Gilmor, M.D., Canal Fulton; Western Reserve University School of Medicine, Cleveland, 1916; aged 51; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 16. Dr. Gilmor practiced in Canal Fulton for 11 years. For 10 years he was a medical missionary in Sudan, Ethiopia. Dr. Gilmor was a member of the staff of Massillon City Hospital. He was an elder in the Presbyterian Church and a member of the Rotary Club. His widow, two sons, a daughter, a sister and a brother survive.

J. A. Hamilton, M.D., Decatur; College of Physicians and Surgeons, Baltimore, Md., 1883; aged 78; former member of the Ohio State Medical Association and the American Medical Association.

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tion; died March 22. The oldest practicing physician in Brown County, Dr. Hamilton had been located in Decatur since 1894. He was a director of the Ripley National Bank and a member of the Presbyterian Church. His widow, two sisters and a brother survive.

John Edward Hardman, M.D., Youngstown; College of Physicians and Surgeons of Baltimore, Md., 1909; aged 54; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 4. Dr. Hardman has been in ill health for the past five years. For 25 years he was an active practitioner in Youngstown. He had served as president of the staff at St. Elizabeth's Hospital, and was president of the Mahoning County Medical Society in 1928. Dr. Hardman was a member of the Catholic Church and the Rotary Club. Surviving are his widow, a son—Dr. Edward Hardman, Youngstown, his parents and four brothers.

Albert Hathaway, M.D., Edon; Rush Medical College, Chicago, 1881; aged 91; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 9. Dr. Hathaway was one of the oldest members of the State Association. In 1932 he was president of the Williams County Medical Society. Edon's leading citizen, he had practiced there for 39 years. He was previously located in Columbia and Edgerton. Dr. Hathaway was a member of the Masonic Order, the I.O.O.F., and the Knights of Pythias. His widow, a daughter and a son survive.

Frederick Morell Houghtaling, M.D., Sandusky; Baltimore Medical College, 1896; aged 67; member of the Ohio State Medical Association and the American Medical Association; died April 17. Dr. Houghtaling had been city health commissioner of Sandusky since 1922 and combined city and Erie County health commissioner since 1926. He formerly practiced in Huron, Lima and Austinburg. During the World War, Dr. Houghtaling was a lieutenant in the Medical Corps of the U. S. Army. An active member of the Erie County Medical Society, he was president in 1924, 1925 and 1926, and delegate to the Ohio State Medical Association in 1927, 1929, 1930, 1933, 1934, and 1935. Dr. Houghtaling was a member of the American Legion, Masonic Order, the Grotto, and the Kiwanis Club. His widow and a daughter survive.

John Johns, M.D., Martins Ferry; University of Pennsylvania School of Medicine, Philadelphia, 1902; aged 63; member of the Ohio State Medical Association and the American Medical Association; died April 14. Dr. Johns practiced in Martins Ferry for 38 years. For the past six years he had been city health commissioner. Active in

civic affairs, he was a former member and president of the local Board of Education. Surviving are his widow, a son, a sister and two brothers.

Simon Pendleton Kramer, M.D., Ft. Thomas, Ky.; Medical College of Ohio, Cincinnati, 1888; aged 72; former member of the Ohio State Medical Association, the American Medical Association and the American Neurological Association; died April 12. A former professor of surgery and pathology at the University of Cincinnati College of Medicine, Dr. Kramer was president of the Cincinnati Academy of Medicine in 1905. He was a major in the Medical Corps of the U. S. Army during the World War. Dr. Kramer retired from active practice about 12 years ago, and since that time had devoted his time to research. At the time of his death he was engaged in experimental work at the National Institute of Public Health, Washington, D. C. His widow, two sons and three sisters survive.

Wade MacMillan, M.D., Oxford; Miami Medical College, Cincinnati, 1891; aged 75; former member of the Ohio State Medical Association and the American Medical Association; died May 13. Dr. MacMillan was director of the student health service at Miami University from 1918 to 1935. He was a former president of the Ohio Student Health Service Association and a former director of the American Student Health Service Association. Dr. MacMillan practiced in Cincinnati prior to his connection with Miami University. His widow survives.

William Martin Millar, M.D., Westport, Conn.; Johns Hopkins University School of Medicine, Baltimore, Md., 1927; aged 39; former member of the Ohio State Medical Association and the American Medical Association; died April 12. Dr. Millar went to Westport in 1939 to enter the practice of general surgery, after having been director of the tumor clinic service at Cincinnati General Hospital. During his ten years in Cincinnati he was engaged in cancer research under the Charles F. Williams Temporary Fellowship for the Study of Cancer. Dr. Millar was also assistant professor of surgery at the University of Cincinnati College of Medicine. Surviving are his widow and his parents.

John D. Miller, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1897; aged 65; member of the Ohio State Medical Association; American Association of Obstetricians, Gynecologists and Abdominal Surgeons; Fellow of the American Medical Association and the American College of Surgeons; died May 18. Dr. Miller practiced in Cincinnati for 40 years. He was a member and former president of the staff of Good Samaritan Hospital; member of the Christ and Deaconess Hospital staffs, and a professor emeritus of the University of Cincinnati College of Medicine. Dr. Miller was a member of the Masonic Order,

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the Cincinnati Club and Nu Sigma Nu. Surviving are his widow, two daughters, one of whom is Dr. Marie Miller (Mrs. John M. Rowan), two sisters and a brother.

Gilbert Mombach, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1909; aged 53; member of the Ohio State Medical Association; Fellow of the American Medical Association and member of the American Board of Obstetrics and Gynecology; died April 9. A member of the staff of Jewish Hospital, and a past president of the Cincinnati Obstetrical Society, Dr. Mombach had practiced there for 30 years. His widow, a daughter, a son and a sister survive.

John Valanglingham Mott, M.D., Amelia; American Eclectic Medical College, Cincinnati, 1885; aged 77; died May 17. Dr. Mott retired two years ago after having practiced in Amelia for 30 years. He was previously located in Lindale for 25 years. Dr. Mott was a member of the Masonic Order, the Modern Woodmen of America, and the Oddfellows Lodge. His widow, a daughter and a brother survive.

Elliott Irving Osgood, M.D., Hiram; Cleveland University School of Medicine, Cleveland, 1897; aged 69; died April 13. Dr. Osgood was a medical missionary in Central China for 25 years. Upon his return to the United States he was field secretary of the United Missionary Society of the Disciple Church. He later became pastor of the Christian Church at Chardon. His widow, a daughter and two sons survive.

Auldy Theodore Rank, M.D., Van Wert; Eclectic Medical College, Cincinnati, 1906; aged 62; member of the Ohio State Medical Association and Fellow of the American Medical Association; died April 25. A native of Van Wert County, Dr. Rank practiced in Carthage, Indiana, for several years, opening an office in Van Wert in 1908. Active in the affairs of organized medicine, Dr. Rank was president of the Van Wert County Medical Society in 1933 and 1934, and in 1937 was a delegate to the Ohio State Medical Association. Dr. Rank was a member of the Knights of Pythias and the Presbyterian Church. His widow, two sons and a brother survive.

Oscar H. Riemenschneider, M.D., Cleveland; Cleveland-Pulte Medical College, 1903; aged 59; died April 7. Dr. Riemenschneider located in Columbus in 1913, and in 1917 was commissioned a lieutenant in the Medical Corps of the U. S. Army. Following that service, he located in Cleveland, where he practiced for over 20 years. Surviving are his widow, and three brothers, one of whom is Dr. Ernest W. Riemenschneider, Cleveland.

Hunter Robb, M.D., Burlington, N. J.; University of Pennsylvania School of Medicine, Phila-

delphia, 1884; aged 77; former member of the Ohio State Medical Association and the American Medical Association; died May 15. Dr. Robb, as professor of gynecology of the School of Medicine of Western Reserve University, was a leading Cleveland physician from 1895 until his retirement in 1914. He was previously assistant professor of gynecology at Johns Hopkins. Two sons survive.

Richard Edward Stoner, M.D., Cincinnati; Western Reserve University School of Medicine, 1937; aged 29; died April 20. A native of Tiffin, Dr. Edward Stoner was an assistant resident physician at Cincinnati General Hospital.

Bernard Harrington Taylor, M.D., Marion; St. Louis University School of Medicine, 1928; aged 38; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 9. Dr. Taylor practiced in Marion for six years, and in Greencamp for five years. Surviving are his parents, a daughter, two sons and a sister.

A. Randolph Walker, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1884; aged 79; died April 23. Dr. Walker practiced in Cincinnati for over 50 years. He was a member of the Masonic Order. His widow and a sister survive.

John Henry Weber, M.D., Akron; Western Reserve University School of Medicine, Cleveland, 1902; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association and the American College of Surgeons; died May 13. Dr. Weber practiced in Akron for nearly 35 years. He was secretary of the Summit County Medical Society in 1907-1908, and president in 1909. Dr. Weber was a member of the staff of City, St. Thomas and Children's Hospitals; Exchange Club; University Club; Akron City Club; the Masonic Order; Beta Theta Pi and Nu Sigma Nu fraternities. Surviving are his widow, two sons, a brother—Dr. O. A. Weber, Cleveland, and two sisters.

Logan B. Zintsmaster, M.D., Massillon; Western Reserve University School of Medicine, Cleveland, 1901; aged 64; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died May 10. Dr. Zintsmaster had been chief of staff of Massillon City Hospital ever since its beginning. He had practiced there since 1902. During the World War he served as a captain in the Medical Corps of the U. S. Army. A resolution memorializing the distinguished career of Dr. Zintsmaster was adopted by the Stark County Medical Society, of which he was president in 1918. His widow, a son, a brother and a sister survive.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

Members of the Adams County Medical Society held a meeting at the Court House, West Union, Wednesday, April 17. The morning session began with a business meeting, followed by a paper on "Newer Uses of Sulfanilamide and Its Derivatives", by Dr. S. R. Gendelman, Manchester, with discussion by Dr. O. K. Engelke, West Union. Report of the legislative committee-man was given by Dr. S. J. Ellison, West Union. At the afternoon session Dr. Roy L. Kile, Cincinnati, spoke on "Pre-Cancerous Skin Conditions and Other Common Skin Lesions". Dr. R. C. Wenrick, Winchester, was the discussant. A round-table discussion of "Poor Relief", concluded the meeting.—O. T. Sproull, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during May:

May 7—Hospital Night, at the Hamilton County Tuberculosis Sanitarium, by members of the staff. "A Brief Summary of Malignant Neoplasms Simulating Pulmonary Tuberculosis", Dr. Robert J. Ritterhoff; "Tuberculosis in the Negro", Dr. Charles A. Castle; "Pneumonolysis", Dr. Lynne E. Baker; "Thoracoplasty", Dr. James N. Christiansen; "Case Reports of Acute Silicosis With and Without Pulmonary Tuberculosis", Dr. Robert L. Garber.

May 21—"A Review of Five Years' Study of the Pneumonias at the Cincinnati General Hospital, Department of Internal Medicine", Dr. Julien E. Benjamin and Dr. James M. Rueggesser, with discussion by Dr. M. A. Blankenhorn; "Weil's Disease in Cincinnati", by Dr. William F. Ashe.

May 29—Annual Academy Party at Hyde Park Country Club.—Bulletin.

HIGHLAND

Dr. Archibald Fine, Cincinnati, spoke on "Radiation Therapy in the Treatment of Carcinoma", at a meeting of the Highland County Medical Society, Wednesday noon, May 1, at the Parker Hotel, Hillsboro.—News clipping.

WARREN

Dr. Harry A. Nieman, Dayton, spoke on "Treatment of Common Skin Diseases", at a meeting of the Warren County Medical Society, Tuesday, April 2, at the Town Hall, Lebanon.—News clipping.

"Medical Care for Low Income-Groups", was the subject discussed by Dr. L. Howard Schriver, Cincinnati, First District Councilor of the State

Association, at a meeting of the society, Tuesday afternoon, May 7, at Lebanon.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Stanley R. Mauck, executive director of the Columbus Bureau of Medical Economics, explained the operation of his organization at a joint meeting of the Clark County Medical Society and the Springfield Dental Society, Thursday night, April 11, at the Springfield Country Club.

Dr. Chevalier L. Jackson, professor of bronchoscopy, Temple University School of Medicine, Philadelphia, spoke on "Bronchologic Observations in General Practice", at a dinner meeting of the society, Friday evening, May 3, at the Hotel Shawnee, Springfield. Many out-of-town physicians attended the meeting, every county in the Second Councilor District being represented.—G. M. Lane, M. D., secretary.

DARKE

"Uterine Bleeding", was the subject discussed by Dr. E. F. Damstra, Dayton, at a dinner meet-

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FRACTURES & TRAUMATIC SURGERY—Ten Day Intensive Course starting September 23rd. Informal Course every week.

GYNECOLOGY—Two Weeks Intensive Course starting October 7th. Four Weeks Personal Course starting August 26th.

OBSTETRICS—Two Weeks Intensive Course starting October 21st. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 9th. Informal and Personal Courses every week.

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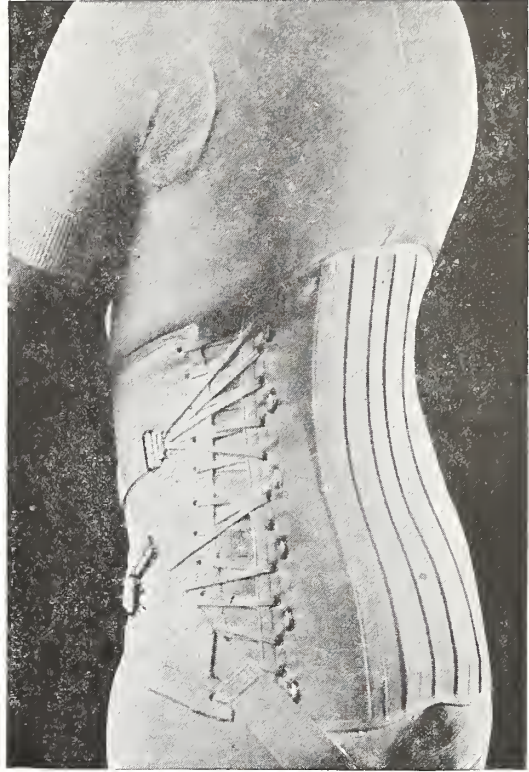
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Commenting on the increased likelihood of patients with spondylolisthesis lesions to suffer from industrial low back injury and on the pathology and symptoms of such injuries, an orthopedic surgeon* in a recent article continues, as follows: "... one begins by putting the patient to bed for anywhere from a few days to two weeks. Physiotherapy is used to give relief from pain and to strengthen the muscles of the back. Sometimes it is well to assure rest to the injured back by immobilization in a plaster jacket. When the patient gets out of bed one must provide him with a low back belt if the symptoms have been mild, or with a spinal brace if rigid support is needed. If, in spite of prolonged conservative treatment, the pain and weakness in the back and the disability continue, one must realize that permanent internal fixation is required."



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*Samuel Kleinberg, M.D.
New York State Journal of Medicine
Volume 39, September 15, 1939



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ing of the Darke County Medical Society, Tuesday, April 16, at the James Hotel, Greenville.—W. D. Bishop, M.D., secretary.

GREENE

The Greene County Medical Society met in the society's room in the Court House, Xenia, Thursday morning, May 2. Leo Ey, of the State Department of Health, Columbus, spoke on "Rabies in Ohio", and Dr. G. E. Savage discussed "Rabies in Greene County".—D. F. Kyle, M.D., secretary.

MIAMI

At a meeting of the Miami County Medical Society, Friday afternoon, May 3, at the West Milton Inn, West Milton, Dr. Harry A. Neiman, Dayton, spoke on "The Recognition and Treatment of Skin Cancer".—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Members of the staff of the National Military Home presented the program at a complimentary dinner meeting of the Montgomery County Medical Society at the Home, Friday evening, May 3.

Dr. M. Edward Davis of Chicago Lying-in Hospital and Dispensary, Chicago, was the speaker at a dinner meeting of the society, Friday evening, May 17.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

Dr. W. H. Guy, professor of dermatology, University of Pittsburgh School of Medicine, spoke on "Dermatology", at meeting of the Academy of Medicine of Lima and Allen County, Tuesday evening, May 21.—Edward B. Pedlow, M.D., correspondent for *The Journal*.

CRAWFORD

A meeting of the Crawford County Medical Society at the Bucyrus Elk's Club was devoted to a discussion of medical service plans for the low-income groups. Two representatives of the Farm Security Administration explained their program for medical care of F.S.A. clients.—Theo. D. Sawyer, M.D., secretary.

HANCOCK

Dr. George Crile, Jr., Cleveland, spoke on "Diseases of the Thyroid", at a meeting of the Hancock County Medical Society, Thursday evening, April 4, at Findlay. Fifty physicians attended, including guests from nearby communities.—News clipping.

HARDIN

Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, spoke on "Present Trends in Medical Practice", at a meeting of the Hardin County Medical Society, Thursday evening, April 18, at Kenton.—News clipping.

LOGAN

Dr. Louis J. Roth, Columbus, spoke on "Treatment of the Pregnant Woman with Syphilis", at a meeting of the Logan County Medical Society, Friday, April 5, at Bellefontaine. On Tuesday evening, April 23, the society met with representatives of the Farm Security Administration. Dr. Edward B. Gillette, Toledo, spoke on "Methods of Treatment of Common Fractures", at a meeting of the society, Friday evening, May 3.—Frederick W. Kaylor, M.D., secretary-treasurer.

SENECA

The Ciba Company presented a sound and technicolor movie on "Respiration and Circula-

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tion", at a meeting of the Seneca County Medical Society, Thursday evening, May 16, at Fostoria City Hospital.—M. H. Aiken, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Academy of Medicine of Toledo presented the following programs during May:

May 3—General Meeting. "The Results of Radiation Therapy in Carcinoma of the Uterine Cervix with 400,000 volts and Radium After One to Five Years", Dr. John T. Murphy.

May 10—Section of Pathology, Experimental Medicine and Bacteriology. "Common Allergic Manifestations and Their Treatment", Dr. John Sheldon, assistant professor of internal medicine, University of Michigan Medical School, Ann Arbor, Mich.

May 17—Medical Section. "Allergic Dermatoses", Dr. Samuel J. Levin, Detroit, Mich.

May 24—Surgical Section. "The Role of Surgery in the Treatment of Hypertension", Dr. R. H. Quade.

May 31—Eye, Ear, Nose and Throat Section. Symposium on "Headache", by Dr. M. A. Schnitker, Dr. M. T. Schnitker, Dr. L. C. Ravin and Dr. J. E. Minns.—Bulletin.

PUTNAM

Paul J. Lynch, executive director of the Northwestern County Hospital Service Association, explained the non-profit plan for hospital care at a meeting of the Putnam County Medical Society, Tuesday, May 7, at the Hotel Putnam, Ottawa.—H. N. Trumbull, M.D., correspondent for *The Journal*.

WOOD

The Wood County Medical Society met in the Woman's Club Building, Bowling Green, Thursday, April 18. After the usual six o'clock dinner, regular business was taken up.

Some time was given to a discussion of the

National Physicians Committee for the Extension of Medical Service and it was decided to endorse the work of this body. The vote was unanimous in favor of the movement.

The paper of the evening was given by Dr. Dudley Stewart of the Toledo Clinic and formerly associate professor of orthopedic surgery at the Tulane University Medical School. Dr. Stewart chose for his subject "Treatment of Some Common Fractures". With the aid of lantern slides, Dr. Stewart covered in a very interesting way the treatment of the common fractures and especially emphasized means of recognizing the types which should have consultation with the orthopedic surgeon. His paper was extremely practical and informative. The questions following were answered in a painstaking way and a rising vote of thanks was tendered Dr. Stewart.

Drs. Janey and Mannhardt announced they had secured Dr. G. B. Meyers, professor of medicine, Wayne University Medical School, Detroit, for the May meeting. His subject will "Jaundice".—D. R. Barr, M.D., correspondent for *The Journal*.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Plans for the extension of medical service were discussed at a dinner meeting of the Ashtabula County Medical Society, Tuesday night, April 9, at the Hotel Ashtabula, Ashtabula.—News clipping.

CUYAHOGA

Programs recently presented by the Academy of Medicine of Cleveland included the following:

April 24—Pediatric Section. "Epidural Abscesses in Children", Dr. Spencer Braden; "Anthropometry in Children", Dr. Milton B. Cohen; "Paroxysmal Tachycardia in the New Born", Dr. Joseph E. McClelland.

April 30—Military Medicine Section. "Modern

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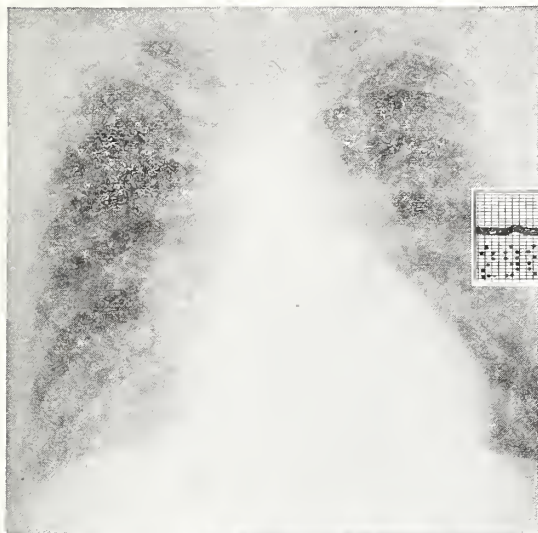
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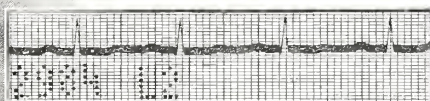
STUDIES IN THE AVITAMINOSES



This page is the sixth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the May 25 issue of The Journal of the American Medical Association.

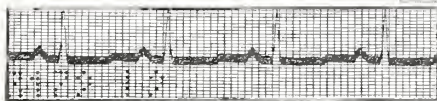


Teleoroentgenogram, at left, of alcoholic patient with severe thiamin deficiency, marked cardiac dilatation, congestive heart failure. X-ray below, taken after three weeks of thiamin chloride therapy, shows marked reduction in cardiac size. Patient received no digitalis.

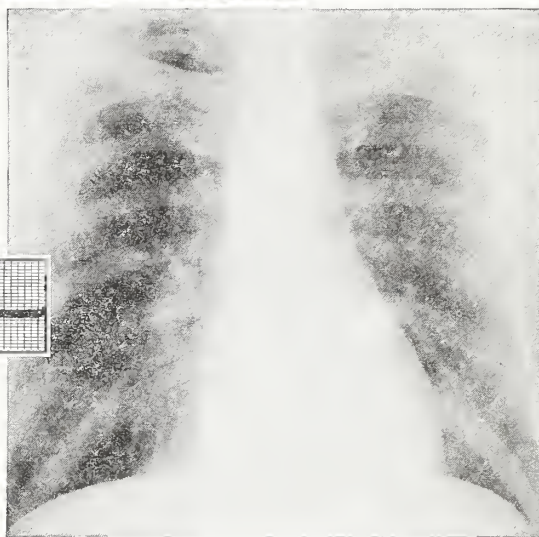


Electrocardiogram on admission (Lead 2). Note the low voltage of the QRS complexes and of P and T waves. (Left)

After three weeks of thiamin chloride therapy. Note increased voltage, return of P waves. Later tracings showed normal T waves. (Lead 2)



Courtesy of Henry Field, Jr., M.D.,
University of Michigan.



The Cardiac Manifestations of Vitamin B₁ Deficiency

Vitamin B₁ apparently exerts no specific influence upon the normal heart, but profound deficiency resulting from drastic deprivation may lead to cardiac derangements which are as characteristic as the neural changes at times resulting from thiamin deprivation. In the cases reported, physical examination disclosed that the heart was enlarged to both the right and the left, although on postmortem examination of patients who died of extreme deficiency the enlargement was seen predominantly in the right auricle and ven-

tricle. The former was dilated and paper thin; the wall of the latter appeared thickened and its chamber enlarged. Some difference of opinion exists concerning the mechanism of the increase in cardiac size, since both hypertrophy and edema have been observed by different investigators.

The clinician, through whose courtesy the x-rays and electrocardiograms shown above are made available, states that administration of thiamin chloride promptly led to reduction in the cardiac silhouette.



Navy Medicine", Lt. B. N. Ahl, Medical Corps, U. S. Navy.

May 3—Clinical and Pathological Section. "Practical Suggestions in Gall Bladder Surgery", Dr. Byron B. Colvin; "Theories of the Etiology of Toxemia of Pregnancy", Dr. J. J. Thomas; "A Case of Toxemia of Pregnancy", Dr. Anna M. Young and Dr. H. B. Thomas.

May 8—Practice of Medicine Section. (Psychosomatic Medicine.) "The Total Personality in Illness", Dr. M. D. Friedman; "Emotional Disturbances Simulating Organic Diseases", Dr. J. H. Nichols; "Emotional Factors in Organic Disease", Dr. E. O. Harper.

May 17—Regular Academy Meeting. "Recent Advances in Cancer Research", Clarence Cook Little, Ph.D., Bar Harbor, Maine, managing director, American Society for the Control of Cancer.

May 22—Industrial Medicine and Orthopedic Section. "Pitfalls and Fallacies of Industrial Medicine", Dr. D. B. Lowe, Akron, medical director, B. F. Goodrich Co.—Bulletin.

GEAUGA

A plan for the medical care of Farm Security Administration clients was adopted by the Geauga County Medical Society, at Burton, Wednesday, April 24. The meeting was attended by Harley H. Kress, Bellefontaine, F.S.A. representative in Logan County; Edward Straight, supervisor for Lake and Geauga counties, and Miss Ardis J. Matz, Painesville, home management supervisor. The society discussed other organization matters and elected Dr. H. E. Shafer, Middlefield, delegate, and Dr. C. F. Gilmore, alternate, to the Annual Meeting of the Ohio State Medical Association.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. E. R. Thomas, Youngstown, spoke on "The Acute Abdomen", at a meeting of the Columbiana County Medical Society, Tuesday night, April 9, at the American Legion Hall, Lisbon.—News clipping.

PORTAGE

Dr. Lorand Johnson, instructor in ophthalmology at Western Reserve University School of Medicine, Cleveland, spoke on "Treatment of Eye Emergencies", at a meeting of the Portage County Medical Society, Thursday evening, May 2, at the home of Dr. Rollin D. Worden, Ravenna.—E. J. Widdecombe, M.D., secretary.

STARK

"The Functions and Failings of the Brain", was the subject of an address made by Dr. Joseph L. Fetterman, Cleveland, at a meeting

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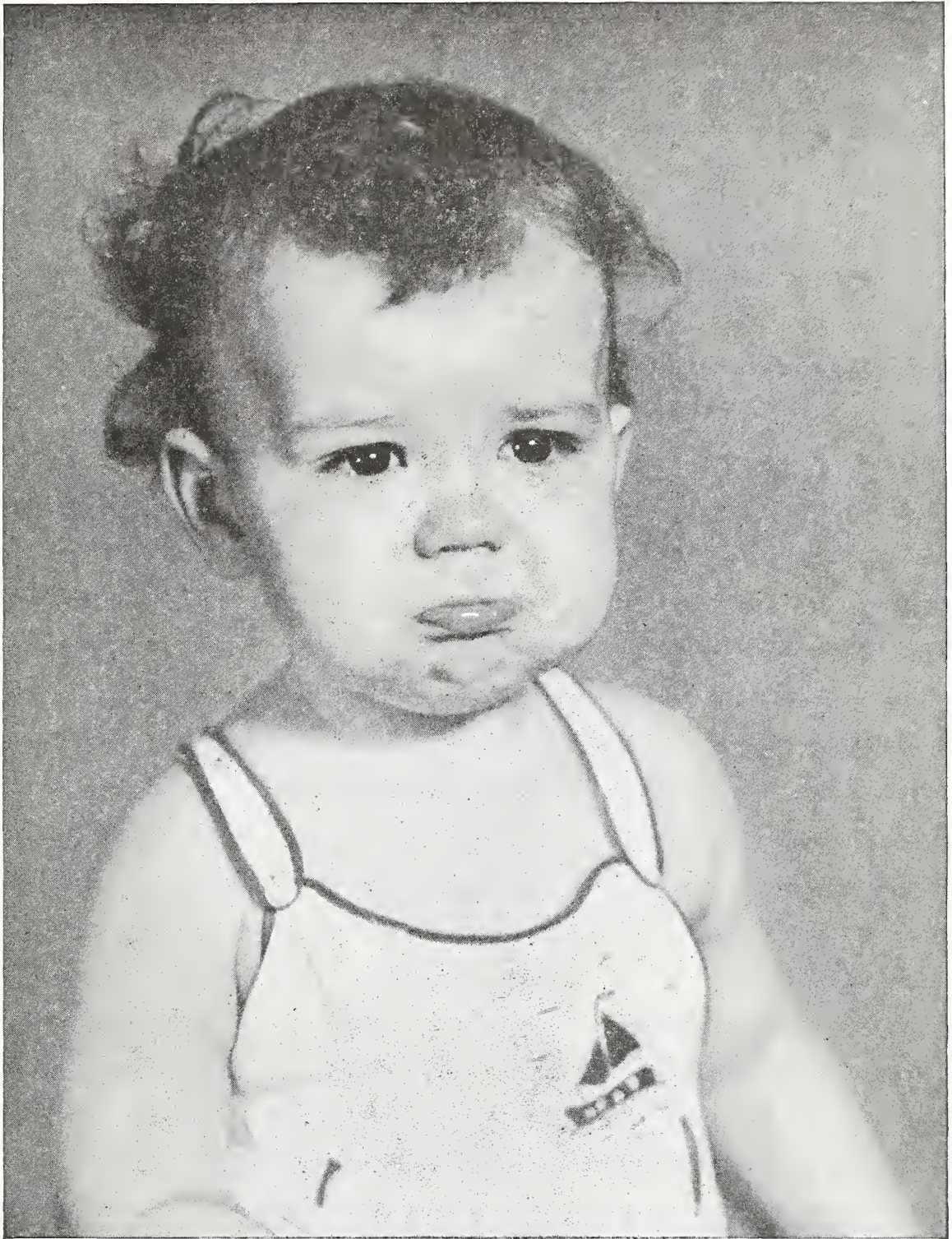
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of the Stark County Medical Society, Thursday evening, April 18, at the Elks' Club, Canton.—Clair B. King, M.D., secretary.

"Changing Concepts in Peptic Ulcer", was the subject discussed by Dr. J. D. Garvin, Pittsburgh, Pa., at a meeting of the Summit County Medical Society, Tuesday evening, May 7, at the Mayflower Hotel, Akron.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Medical service plans and local relief problems were discussed at a meeting of the Belmont County Medical Society, Thursday, May 2, at Kilkenny Inn, Bellaire.—C. W. Kirkland, M. D., secretary.

JEFFERSON

At a meeting of the Jefferson County Medical Society, Tuesday evening, April 9, at the Ohio Valley Hospital, Steubenville, Dr. Florence M. Kline, Pittsburgh, spoke on "Allergy as Related to General Medicine".—News clipping.

Dr. David H. Ruben, Washington, Pa., spoke on "Pertinent Facts in Present Day Urology", at a meeting of the society, Tuesday evening, May 7, at the Ohio Valley Hospital, Steubenville.—Dalvin R. Cahill, M.D., secretary.

TUSCARAWAS

Dr. G. L. Sackett, Cleveland, formerly of New Philadelphia, spoke on "Errors in Roentgen Diagnosis", at a meeting of the Tuscarawas County Medical Society, at the Reeves Hotel, New Philadelphia, Thursday night, April 11.—News clipping.

"Diseases of the Thyroid", was the subject of an address made by Dr. George W. Crile, Jr., Cleveland, at a meeting of the society, Thursday, May 9, at the Reeves Hotel, New Philadelphia.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

FAIRFIELD

"The Modern Treatment of Diabetes Mellitus", was discussed by Dr. O. W. Jepson, Columbus, at a meeting of the Fairfield County Medical So-

ciety Tuesday, April 16, at Lancaster.—News clipping.

GUERNSEY

Attorneys Clair Young, McConnelsville, and W. D. Campbell, Cambridge, were the speakers at a meeting of the Guernsey County Medical Society, Thursday afternoon, April 4, at the Berwick Hotel, Cambridge.—News clipping.

A meeting of the society, Thursday noon, May 2, was addressed by Dr. William Camp, on the subject, "Spinal Meningitis".—News clipping.

LICKING

Dr. Jay McLean, Columbus, spoke on "X-Ray Treatment of Infection", at a meeting of the Licking County Medical Society, Wednesday evening, April 30, at Hull Place, Newark.—News clipping.

MUSKINGUM

Dr. K. Eichwald spoke on "Socialized Medicine", at a meeting of the Muskingum County Academy of Medicine, Wednesday evening, May 1, at the University Club, Zanesville.—Beatrice T. Hagen, M.D., secretary.

PERRY

At a meeting of the Perry County Medical Society, Thursday noon, April 18, at the Park Hotel, New Lexington, Dr. W. B. Morrison, Columbus, spoke on "Curability of Cancer of the Stomach".—News clipping.

WASHINGTON

Dr. Wm. F. Mitchell, Columbus, spoke on "Hay Fever and Asthma", at a meeting of the Washington County Medical Society, Wednesday evening, April 10, at the Hotel Wakefield, Marietta.—News clipping.

Ninth District

(COUNCILOR: O. P. SEILER, M.D., PIKETON)

HOCKING

County officials who administer relief, including the county commissioners, auditor and relief director, were guests at a meeting of the Hocking County Medical Society, called for the purpose of discussing "Medical Relief", Friday noon, April 19, at the White House, Logan.—News clipping.

SCIOTO

Dr. Oscar Biern, Huntington, W. Va., spoke on "Erythrocyte Sedimentation Time", at a meet-



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ing of the Hempstead Academy of Medicine, Monday evening, May 13, at the General Hospital, Portsmouth.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The following programs were presented by the Columbus Academy of Medicine during May:

May 6—Symposium: "What Is Organized Medicine Doing Today?" Closed meeting for members only. Subjects discussed included: medical service plans; central admitting bureau; legislative problems; State Association Annual Meeting.

May 27—Section in General Medicine. "The Value of Adrenal Cortex in Preventing Hydration in Hyperpyrexia and Allied States", Dr. George W. Keil; "Indications, Technique, Results of Fever Therapy—Demonstrations", Dr. W. H. Miller.—Bulletin.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

LORAIN

Forty-five members attended a meeting of the Lorain County Medical Society, Tuesday, April 9, at the Lorain Country Club, Lorain. The two proposed amendments to the constitution of the Ohio State Medical Association were endorsed during the business session. Dr. S. V. Burley, Eleventh District Councilor, stressed cooperation with each other by members of the society. Dr. Valloyd Adair, in his address on "Ethics", emphasized the various pitfalls that could be avoided by better fellowship, and admonished the members to meet the challenge of the cults by acting always with dignity. In discussing Dr. Adair's address, Dr. R. W. Hancock asked for unselfish conduct and the application of the Golden Rule. Dr. C. R. Meek and Dr. Taylor Smith spoke on "Medical Economics". The former discussed medical service plans, equitable rates for service and industrial work, and Dr. Smith reviewed the proposed Enabling Act and stressed the importance of ascertaining the views of candidates in the primaries on medical questions. Dr. A. C. Siddall described his "Panel Plan for Consultants", designed to meet the popular contentions that good medical service can be obtained only at clinics, and that organized medicine is opposed to change. The long program precluded any discussion.—I. L. Levin, M.D., secretary.

RICHLAND

Dr. Claire L. Straith, Detroit, spoke on "Treatment of Facial Injuries and Malformations", at a meeting of the Richland County Medical Society, Thursday afternoon, April 18, at the Mansfield General Hospital.—Mabel Emery, M.D., program chairman.

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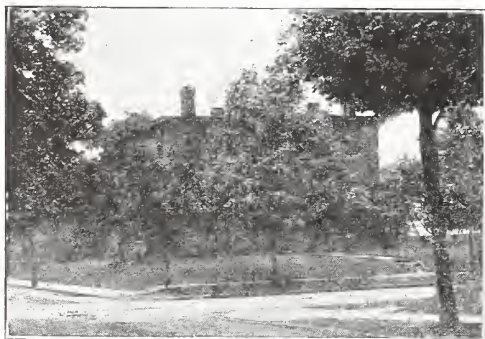
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The Ohio State Medical Journal

Published under the direction of The Council for and by the members of The Ohio State Medical Association, a scientific society, non-profit corporation, with a definite membership, for scientific and educational purposes.

Vol. 36

July, 1940

No. 7

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Preventive Medicine, Public and Personal

HAVEN EMERSON, M.D.

WHEN Oliver Wendell Holmes wrote his verses for the National Sanitary Association in 1860 and Sir William Osler 50 years later gave his lay sermon to the students of the University of Edinburgh each expressed depth of feeling and purity of thought with words of such beauty and force that elaboration upon the theme of man's redemption of man today seems almost sacrilegious. I beg your indulgence if you have read and remember the sayings of those gifted leaders of our profession. Eighty years ago Dr. Holmes encouraged the sanitarians with the slogan

"To guard is better than to heal
The shield is nobler than the spear."

Thirty years ago Dr. Osler urged the students before him to "fight for the day when a man's life shall be more precious than gold. Now alas! the cheapness of life is every day's tragedy," and he quoted from the Greek philosopher Prodicus the phrase "That which benefits human life is God."

Let me warn those of you fresh from today's abundant feast of medical art and science to expect no such equivalent triumphs and techniques this evening. For such of you as are of the community of patients, now and then, some methods and motives I venture to offer may rouse your interest.

Nothing creates so keen a sense of humility and so enduring a complex of inferiority among those concerned with the prevention of disease, as reports of the refinements and perfections in

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diagnosis and treatment presented in mass and infinite detail of precision by galaxies of clinical specialists. It is as if the farm horse were measuring speed and power with the latest areoplane. Prevention is so easily claimed and so difficult to prove. You who are chiefly engaged in answering riddles of material disease and its psychiatric counterparts, and in relieving sickness where possible, or with infinite patience and gentle understanding observing the irreversible progress to life's terminus, you I say, the blessed physicians, trustees of the accumulating centuries of science since Hippocrates, have outstripped expectation, imagination, and even the hope of earlier generations with the miracles of modern medicine.

The world in clamorous expectation awaits with but ill-concealed impatience for the next discovery of cause and cure, the weekly promise that none need die of cancer, that hearts can be rebuilt or their timing mechanisms resynchronized, that deafness can be cured, and the insane brought back to a rational life by some new internal explosion of the chemist's wizardry.

How can the sanitarian compete for public

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attention, or appeal to the understanding of the individual in the face of obvious, tangible immediate successes of the therapy of knife or drug? Those who peddle preventive medicine must first sell their bill of goods. They deal often with such conditions of ill-health as are heard of but not always experienced, and then if good health is maintained they will claim this as a result of their advice, or possibly of the doings of some distant engineer on a water or milk shed.

THE SCOPE OF PREVENTIVE MEDICINE

What is this preventive medicine? Is it to be distinguished from the curative arts? Can we claim it as one of the disciplines of medical education? Is it primarily or exclusively the province of the physician? Is it an illusory hope of Utopians, a social ambition to achieve collective salvation? Are we moving towards a desirable specialization in developing preventive medicine, or is prevention but a direction in the expanding field of medical practice, reaching into the origins of specific causes, searching for ways of eugenic use of genetics as the earliest factor in a life still unconceived? As the operating surgeon of the industrial and war-wounded has become a recon-ditioner, the rehabilitator, the reconstructor of the workman's life, with occupational therapy merging into vocational training and placement, and social and economic reestablishment, so at the other end of the scale of service physicians of all kinds begin to concern themselves with deviations from perfect fitness which long antedate, and warn only to the skilled observer of the beginning of, a chain of circumstances, physical and psychical, which at some distant time will draw the person as patient to the doctor's office.

With what mass or content of human conduct or experience is preventive medicine concerned? Surely first with the preventable diseases. This is no fixed or stable list of biological maladjustments but an accumulating body of knowledge growing by leaps and bounds as the discoveries of causes and the devices of prevention push back the surrounding wall of our ignorance of disease.

Hardly was man aware of diseases and their treatment before his insatiable curiosity drove him to seek prevention, to invoke the deities to use authority, to compel observance of practices of living intended to reduce the prevalence of sickness. If we look about us in the text-books or listen to the teachers in clinic and laboratory we have everywhere evidence of the conviction that in theory or in fact many of man's ailments are avoidable.

When we try to bring order and some system into the listing of preventable diseases certain classes or groups emerge as of first importance, and we find ten or a dozen categories within

which all can be discussed. Among these, most frequent numerically, earliest historically, and most devastating in their effect upon the general well-being of man, are nutritional inadequacies, creating not so often death as inferiority of life.

Next among man's natural afflictions are the communicable diseases, the penalty he pays for gregariousness, for disregard of the niceties of cleanliness, and for under-rating the power and prevalence of Nature's least creations. To abolish these we need not so much new knowledge as the will to use what we now possess.

Third is the unending array of occupational diseases and hazards accumulating in astronomical proportions since Ramazzini first listed them in 1707. Others are the habitual use of drugs, whether as a dietary or social ritual, or for medicinal purposes, self chosen as distinct from medically prescribed. There are, too, the innumerable allergies or protein susceptibilities. And then some categories, limited or selective, such as certain of the mental diseases, cancer of particular sites and origins, and a few of the diseases of the heart. There are recognized also as preventable some conditions of physical growth and development, related to human reproduction and the period of life prior to complete skeletal maturity.

Within the group of developmental disorders fall the anemias and toxemias of pregnancy, the imbalances of growth, and the endocrine or hormone relationships as we see them from the neonatal month of infancy to the completion of adolescence and beyond.

By themselves as a further category of preventable conditions affecting the quality and length of life are accidents, not only those of physical violence, but such as may wound or deform or permanently disturb the mind, spirit, emotions or conduct of child or parent.

A considerable variety of conditions are preventable only through interference with their hereditary transmission.

For practical purposes it appears that at present these crude but convenient classes of disease or disturbances of the human psycho-biological unit will now include the major subject matter or scope of preventive medicine. I do not claim that some entity of functional or structural pathology, capable of prevention, cannot be found which will be awkward to accommodate within one or other of these groups. It is to be expected that in principle and in fact diseases of new types and origins will be proved to be preventable.

Note also that these groups are not necessarily mutually exclusive. Some diseases fall as logically in one class as in another. For instance it is the contemporary fashion to develop an alibi for the unpopular but common chronic alcoholism by euphemistically labelling its obvious victims as sufferers from one or more of the avitaminoses.

Socially they have achieved their condition by excess of alcohol. Chemically the body suffers from a food deficit and a drug poisoning, but the institutional admission will be quite likely listed under the psychoses.

I challenged a group of graduate students in Athens once to break or enlarge this list of categories of preventable diseases and was met by the instant query of a professor of pharmacology as to wounds of war. Certainly not accidents, but definitely intentional. One might call them occupational, but I was tempted to list them among the sequellae of herd insanity due to mental pathology of the mob. Perhaps the recent brilliant contribution to society and psychiatry of Dr. Edward A. Strecker, in his Salmon Memorial volume "Beyond the Clinical Frontiers", will be considered as a justification for my quite arbitrary and perhaps evasive answer.

No classification in a quickly advancing science can last long, and I ask your acceptance of mine only for time-saving and as a stepping stone to other thoughts.

How shall we in fact prevent these diseases in the individual or in the demos, the community? The popular answer in our seats of government is "by better and more comprehensive public health services." At which point we must do a little heart-searching or at least agree to some definitions which will be medically acceptable and socially useful.

WHAT IS PUBLIC HEALTH?

Preventive medicine is not synonymous with public health as a science or an art, as a personal occupation or as a function of government. May I suggest that at least for this evening we define public health services as the application of the sciences of preventive medicine by government, or with its approval, for social ends. Sir George Newman, until recently the chief medical officer of the British Ministry of Health, said that the object of preventive medicine was to build a better tabernacle for the soul of man to inhabit. Professor Winslow of Yale, the well known bacteriologist, sanitarian and social evangelist, in 1920 defined public health as "the science and art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will insure to every individual a standard of living adequate for the maintenance of health; organizing these benefits in such fashion as to enable every citizen to realize his birthright of health and longevity." Thus we have the medical servant of government,

and the promoter of social medicine in their respective attitudes of idealistic expansiveness.

For the sake of encouraging precision of thought I propose that we recognize distinctions of origin, purpose and responsibility for public health services, for organized care of the sick, and for the private practice of medicine whether for prevention or treatment of sickness. Public health is not a determinable or objective entity. It is merely the sum of individual personal healths, even as the national wealth is the sum of the production and savings of individuals.

Public health services as authorized by laws enacted by Congress, by state legislatures, municipal assemblies or councils, or by boards of health, include an almost unlimited number of functions intended, or at least believed to be at the time of the enactment of the laws or ordinances necessary for or contributory to the health of the population unit concerned. Except that the authorization for acts of departments of health must avoid the charge of being arbitrary or tyrannical, there is hardly any limit to the extent of potential interference in or influence upon the life and property of an individual permitted under our sanitary codes and public health laws, if only it can be maintained successfully that the acts and measures taken do promote general health. In this we are not primarily concerned with the health of an individual, that is, personal health, but rather with the social or group effects of official health services. There is good reason to believe that all the authority that can be effectively used by officers of health is now amply provided for, and can be availed of by reasonable interpretation of existing laws.

Whatever promotes health may properly be included as the application of the science of preventive medicine, for do we not promote health by the prevention of any deviation from a physiological as contrasted with a pathological way of life, whether this be a prevention of an immediately threatening or predictable disease or a promotion of such conduct of life and conditions of environment as will assure uninterrupted continuance of existing well-being.

Now we come to the intent of the words "application of the science of preventive medicine by or with the approval of government". It is by the inclusion within the structure of civil government of the functions of public health that the past hundred years of occidental civilization have been marked as having a social experience different from and beyond anything attempted or achieved by previous phases of civilization. Government has undertaken the major load of public health services, and has encouraged and authorized public health work by agencies and institutions supported by voluntary contributions.

In 1848 the first national public health law was enacted by the Parliament of Great Britain.

In 1858 the first state board of health was created by act of the legislature of the Commonwealth of Massachusetts. In 1865 the first Metropolitan Board of Health was created for New York City by the legislature of the State of New York. In 1904 the first national voluntary health agency in this country, The National Tuberculosis Association, was incorporated.

These expressions of social aspiration, of professional conviction of necessity, and governmental acceptance of newly enlarged and defined functions gave the structural basis upon which has been built the net-work of services for public health from village, town, city and county local department of health, through the state or provincial, to and beyond national and federal health services to the capstone of this administrative structure, the Health Section and Secretariat of the League of Nations and the international sanitary treaties, conventions and agreements.

In the past hundred years there has come about a remarkable similarity in the administrative patterns within which public health functions have been exercised by civil government, whether local, state or national. Each government unit which has attempted seriously to make use of its authority under the law, and has had appropriations of tax monies to implement its authority by actual services, has developed what are generally thought of as the six essential activities of a department of health. These are the bookkeeping of natality, morbidity and mortality, so-called vital statistics; the control of communicable diseases; supervision of environmental and particularly occupational sanitation, indoors and out; the services of a public health laboratory; protection of the health of mothers, infants, and children to the end of school life; and lastly, education in health.

True, there are undertakings of health departments here and there in the field of mental hygiene and cancer, and so-called adult hygiene, but the serious and competent contributions to the health of communities in the Americas and in the countries of western Europe have been almost exclusively within the scope of the six essential bureaus or divisions above listed.

When we attempt a distribution of credit for the truly amazing advance in national health in the past 50, and particularly within the last 25 years, we find difficulties in separating the benefits due to public services for health from the advances in the private practice of medicine out of which almost all the public functions have been evolved.

By organized care of the sick we mean the services of institutions and agencies devoted to diagnosis and treatment of sick persons, but with the eight functional divisions of this highly specialized field of voluntary, governmental and

proprietary services we are not at present concerned.

PRIVATE PRACTICE OF PREVENTIVE MEDICINE

What shall we say of private practice of preventive medicine? Is it a specialty? Does each medical and surgical specialty include and provide some part of it? What are its objectives, methods and results? Does the family physician commonly and consciously undertake the necessary procedures and plan his management of patients' lives in a way to bring about effective protection of their health?

If we were to select among the specialists of medicine and surgery, those by whom prevention has already been established as a permanent and major and almost exclusive objective, we must put in the first rank the pediatricians and obstetricians. However, it is increasingly apparent that hardly a specialty has escaped the influence of social pressure and professional development in the direction of prevention. Preventive medicine as a sphere of professional influence and source of self-support certainly does not yet qualify as a specialty. It is rather an integral part of the management of human life inseparable from the processes of diagnosis and treatment of declared disease or such as is subjectively complained of.

Its objectives are the retention and improvement of health, the supervision of growth and development to the end that maturity may be arrived at by passing around, rather than by going through various diseases, and management of the later decades of life to minimize and postpone the inevitable processes of age. In other words personal preventive medicine is based on general biological experience which will reduce the likelihood of the accident of disease in the particular individual under care.

Its methods are in the main three, periodical medical observation and guidance of the lives of individuals, a process of doctoring in its original sense of teaching the way of healthy life; case finding, or in other words methodical searching for and preclinical detection of disease in presumably healthy persons at stages favorable for prevention of spread to others or for arrest, cure, or at least postponement of death; and thirdly, artificial immunization and such other biological and psychical adjustments as will serve the purpose of specific prevention of calculable risks of disease.

This is a planned practice, by methodical application of physiology, exquisite refinement of diagnosis, and immunology in its broad sense. The management of life, of health, constitutes a counterfoil, a balance and background against which the emergencies of infection, accident, and age are cast in the span of each life.

If we should venture to assemble all the fractions of the practice of preventive medicine chronologically applied to a family, the sequence,

the composite would seem ponderous, perhaps extravagant, or even exaggerated but in essence it might be somewhat as follows:

First will come the thoughtful counselling of the young man and woman considering marriage. This is but the wisdom of genetics and heredity thought through and applied for eugenic ends. Are there bits of experience, facts of record, histories of disease, disabilities, deaths among the progenitors, direct or collateral, which would make the mating in any way less than permanently satisfactory? Can this marriage look forward with confidence to child-bearing? If there are not to be children, to avoid perpetuation of undesirable characteristics, can thwarted emotions and physical functions stand the strain? Are there allergies, major and minor, to make the potential parents hesitate? Are there mental traits, or blood dyscrasias or other inheritances which the two have not faced in the thoughtless state of their emotions? These may be problems for the priest, the rabbi or minister, but are they not primarily to be settled by the physician's judgment, based on human biology?

Then if all recognizable obstacles are cleared away and the marriage is planned for, the State and sound medical opinion call for the premarital test for syphilis as part of a thorough medical examination, at which time the physician must learn and if possible correct the limitations of biological knowledge of the two. Biological illiteracy is the rule rather than the exception among even modern sophisticated youth, and upon this ignorance of marriage many individual and family lives are wrecked. All this is included under the general term marriage-counselling, a sounder, deeper and more constructive service than what passes under the common label of birth-control. There may be needed further helpful medical aid towards emotional and physical adjustment of sex relations until the first pregnancy occurs, when the interest of the State and the private physician are again enlisted in that guardianship upon which the long-awaited child-birth depends for security for both mother and babe.

PRENATAL SUPERVISION

Not later than the third month of pregnancy, prenatal supervision should begin. The content and techniques developed for more than 40 years have been refined in some ways but they remain the same in essence as outlined by obstetricians of 1900 and earlier. The precision of serological tests, the more generous use of X-rays of teeth, chest and pelvis, the better understanding of nutritional, metabolic, excretory and cardiac warnings or complications, the more exact decisions in relation to tuberculous infection and the complications of diabetes or heart disease, all offer greater margins of safety and reduced errors of judgment now than formerly. The visiting nurse is a far abler understudy and reporter of prenatal conditions, in intervals between medical conferences, than ever before and does much to reduce the cost and improve the quality of protective hygienic guidance of the expectant mother. Among the popular devices to protect the mother's health and surround her at home with intelligent sympathy instead of superstition and indifference is the conference for expectant fathers in groups of 20 to 30, as conducted in New York by the Maternity Center Association, the demand being unexpectedly beyond the immediate resources to meet.

Leaving the confinement and postpartum period, up to the sixth week discharge examination, to the attending obstetrician, let us jump to the opportunity offered to the pediatrician, or the general practitioner who takes on the newborn babe and carries it through the most hazardous weeks of life, the four of the first month. Here the science of nutrition leaves little to whim or choice. Each item of environment and spacing of nursing is arranged with nicety, and instead of the usual loss of weight in the first week of life, as formerly, we now more frequently see growth almost uninterrupted by birth, continuing at an optimum rate. Then follow the months of periodic supervision while the mother learns and the doctor teaches the simple necessities upon which the growth and development of child structure and function depend.

By the sixth to the ninth month of life, there will begin that series of protective immunizations upon which we now so largely rely for most successful, relative if not permanent, protection against smallpox, diphtheria and whooping cough, and in some of our states, typhoid fever, to be completed by the child's eighteenth month.

There enter here those early exhibitions of undesirable behavior and emotions, stirrings of variety in personality and mentality, which reveal tendencies to be encouraged or corrected, test the discretion of parents and other children and may become the origins of later psychic misfortune if ignored. The pediatrician becomes mental hygienist and leads the parents to observe the classical sequence of trials and errors by which the new personality tests its strength of purpose and desire, its ability to wheedle or frighten, its nuisance value, and its power to draw affection for its own ends, until it usually succeeds in creating complete disorder in the home unless satisfied, or makes such demonstration of non-cooperation at table, bath or bed as seems to call for discipline.

The runabout age requires perhaps only semi-annual review of progress, with dental added to medical supervision. Uninterrupted growth and development, extension of functional capacities and uses will be observed on the occasion of medical contact, unless arrest in weight, some notable disturbance of performance or an acute febrile or allergic episode demands more specific attention. The tuberculin testing of the child in a household known to be free from contact with an open case of tuberculosis may be postponed until just before school age. Passive immunization against measles may have been found necessary at any age before the fifth year either to prevent infection from a known or suspected exposure or to modify an attack which has not been prevented. It may be also in this age period that active immunization against scarlet fever will prove to be desirable though certainly not yet generally accepted as necessary. The reinforcing dose of diphtheria toxoid, the supplementary vaccination against smallpox, and re-vaccination against typhoid where this disease is still endemic, are necessary safeguards to the child on entering school.

Not later than the last summer before entry upon obligatory school attendance a particularly thorough review of the health assets and liabilities of the child by the family physician is called for, including particularly measurement of the hearing and vision. The child, on undertaking its first serious social and disciplinary adjustment should be as free as practicable from handicaps

which may interfere with the development and acquisition of the skills and uses of body and mind through association with teachers and fellow pupils. One needs only to be familiar with the varied museum of pathology offered to the school physician by first grade children to realize the widespread parental and medical indifference to preventable and correctible handicaps of the child's body, mind and special senses. For the school child and its parents the health of the teacher is of major concern, as has been that of the nursemaid, cook or domestic servant in the home, each of whom in turn is a factor of intimate environment. The family and its physician have a right to know that the school teacher comes to her class free from hazards to the child, from unrecognized tuberculosis or because of mental or emotional limitations. Public authority and official health services too rarely maintain the necessary control over the physical fitness of the child's unavoidable adult contacts with persons other than its parents.

Even if official health services attempt to replace family protection of the child's health by an annual medical examination, as they should not be expected to do, there will be a need of medical and dental review of the school child once each year by the family's chosen physician and dentist, preferably at the time of the school closing in June.

Before leaving school for college or gainful occupation, the graduate should have a final vaccination against smallpox, an X-ray of the chest should be taken, and inquiry made as to the youth's biological literacy. Unless made clear by systematic education through parents, teacher or physician earlier in the child's life, as we hope will be the case with all school children in the near future, the facts of human reproduction, the means of self-protection against infection and other pertinent facts of human biology related to the function of sex should be made understandable without equivocation, before the child is discharged from the jurisdiction of the school and its health service. If an occupation has been selected and the particular employment or vocation is known, this is the time to give specific warning against any related hazards to health in the environmental or other conditions of work.

Between the ages of 16 and 30 or 35 the likelihood is that, except for the unusually intelligent person or those in upper economic levels, the physician's services will not be called upon periodically for health guidance, although there are several conditions short of declared disease which should be met by medical advice: in young women, pregnancy or such variation from the usual in menstruation as to interfere with the routine of life; for either man or woman, marked changes in weight, particularly a loss in weight, convalescence following an infection with fever, or an operation, or any such emotional disturbance as a sense of inadequacy socially or in self-support.

Neglect of the precautionary use of the chest x-ray, and lack of certainty as to freedom from syphilitic infection are common factors contributory to neglected insidious disease development in these years of early maturity. Less progress in the all but universal betterment in the tuberculosis situation at all ages, has occurred among girls and young women, married or single with or without pregnancy in the years from 15 to 35, than is recorded among men at this age period or among both sexes in every other age from the first to the seventieth year

of life. The lower the income level the less regular the employment, the more crowded the housing and the more narrowly limited the food, rest and recreation of the young adult, the more likely it is that the physician will find an unsuspected tuberculous infection under 35 and especially among the colored people, and particularly among girls and young women.

Once every two years is not too frequent for periodic medical review of the young adult, quite apart from the supervision of the expectant mother.

From the age of 35 to 45 the frequency and character of preventive medical services will vary widely according to the individual needs and the intercurrent incidents of infection, and of nutritional, endocrine, or emotional imbalances, or of occupational exposures which may require careful tests to detect chronic poisonings as of lead, carbon monoxide, silicious dusts, or of allergic and other forms of dermatitis.

After the age of 45 the annual medical review should be resumed for various purposes, chiefly connected with physiological aging, with cardiovascular defects, alterations in sex functions, the sequellae of infections, particularly those involving joints, and the necessity of searching for the early unsuspected states of cancer, and of recognizing psychoses that threaten social compatibility and mental health. Here the techniques may become more complicated. Obesity, diabetes, alterations of visual acuity and deafness, acquired errors of posture, occupational or from fatigue, injury, or infection, the accumulating damage of habitually used dietary depressants, stimulant, sedative, corrective, digestant, or other self-administered drugs, each may need review of a precise medical history of performance since last contact with the physician, and an expertness of diagnostic skill not always possessed by the family physician.

The medical examination for prevention and guidance through the gathering hazards of the later decades should be twice a year for persons of 65 and over and also for many over 45 who are already handicapped by encroachments upon their physiological and anatomical integrity, and especially among women for whom subjectively unnoticed mammary, uterine or cervical cancer is a common threat.

It is in this period of life that therapeutics and prevention merge in the process of easing the aged through their declining strength and comfort, so that the days may bring them and their families some of the blessings of the sunset and twilight of life.

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When drawn out in even such partial detail as I have offered this program is a long, a complicated, a costly and for many perhaps a superfluous application of the art and science of medicine, and yet a use of the knowledge we now possess both logical and practical.

This private practice of preventive medicine is a medical philosophy of today. It would seem to be but a reasonable sequel to our present command of a mathematical expression of the phenomena of human life as expressed in medical statistics. It is a natural extension of the exquisite skills in diagnosis that must precede the stage of disease at which the patient complains of suffering or disability, of interruption of work,

pleasure, or comfort in living. An ethic is required by patient and doctor based on an obligation to manage and use with wisdom and discretion this body we inhabit for a span. What we do with our material being, our mind and our emotions moulds directly or remotely the pattern and form of lives of others.

We cannot play the role of Christian while disregarding the lessons of Nature by which our power to serve others is determined. The gist of the matter was expressed with simplicity and honesty in the Health Catechism of Dr. Faust in 1792, the earliest text for health teaching of school children, from which I quote the first six questions and answers:

"1. Question: Dear children: To breathe, to live in the image of God, is that something good?

"Answer: Yes, life is a good gift of God.

"2. Question: Are people fond of life and do they try to maintain it?

"Answer: Yes, mankind and every creature loves life, shuns death, and tries even among the greatest suffering to maintain it.

"3. Question: How must the body of man be safeguarded if he would have a long and complete life.

"Answer: He must be healthy.

"4. Question: How can you make sure that man will be healthy?

"Answer: By following the laws given by Nature to man that he cultivate the earth and earn his bread by work.

"5. Question: Can man be of sound mind if he neglects his body and its development?

"Answer: No, the mind and body are so closely related that intelligent care of the body and its development promotes perfection in the power of the mind.

"6. Question: What does man mean by the term health?

"Answer: He means a body without defect or pain, functioning freely and easily in all its capacities, with the mind in control."

As each person is trustee of the inherited qualities of his forbears for better or worse, so the physician is but the chalice of medical science filled with treasured discoveries of his predecessors. The two must combine their resources for the individual life at stake and for his or her offspring.

If we would avoid the impending storm cloud of socialistic persecution and governmental prosecution we must reconstruct our relationship to our clientele on the basis of physiological potentials rather than through relief of established pathological states by treatment of the sick.

Only recently has the medical graduate left his school with queries on his lips as to what he shall do with the new secrets of life he has mastered, to make his community, his families,

the children he has delivered, free and happy, by a healthy manner of living.

Is it not obvious that such a purpose of patient-physician relationship must ever be personal, continuous, voluntary? Can you conceive of any form of government even if staffed with angels as to character, and employing William Oslers for medical service as its agents, which could achieve the life-long companionship of precept and practice upon which preventive medicine in our sense can be developed?

Is there any governor or mayor, any health officer or epidemiologist who is capable of such all embracing concern for the health of mother and child or grandparent as is but a natural expression of the kind of medical employment we already see occupying a large part of our profession?

OFFICIAL HEALTH SERVICES

This private practice of preventive medicine is not all, nor can it stand alone adequate and self-sufficient in our day. The contribution of authority within the law, of control services, of health information, of supervision not only of sanitation but of essential diagnostic and immunization procedures by public health departments is indispensable to community health and fits nicely into any plan of health protection, supplementary to the work of the family physician.

For an understanding of the full meaning of official health services, their content, organization and objectives I must refer you to the Official Declaration of the American Public Health Association, from which I offer you the following significant paragraphs:

"The Association believes that local authorities should assume the primary responsibility for carrying out the program (of six standard functions) here recommended since the major part of direct service to people is preferably a local obligation and should be rendered on a community basis. A permanent, efficient and economic solution of health administration on a state-wide basis can come only through the organization of local (county or city) health departments serving communities of sufficient size to make possible the employment of competent, technically trained executive heads who are responsible for the development of a sound comprehensive program, and who devote their whole time and energies to public health work. Such a department should include the medical, nursing, laboratory, inspectorial and clerical personnel necessary to carry on a complete program.

"It is believed that a comprehensive and well coordinated public health program in any local community or state can exist only when the health department assumes the leadership in public health administration. The health officer is properly held responsible for the performance of such functions as are necessary to secure the maximum of health and longevity of which the people of his community are capable. This does not imply that all services for the protection and promotion of public health must be carried on as official health functions, but rather that the department shall recognize the need of services, participate in the planning, and insure the co-

ordination of activities carried on by such other agencies, official and voluntary, in an adequate plan of health service applicable to the entire community.

"The employment of a competent family physician to guide the household in health as in sickness is the best investment the private individual can make for health. If all families availed themselves of the knowledge and skills of their physician to secure health, as they now do generally to obtain relief from sickness, there would be fewer burdens of preventive medicine for the health department to carry and less chronic and irremediable advanced conditions of illness and disability.

"Physicians in private practice perform a service in the treatment of disease, whether as individuals or in fully organized groups, whether in private offices, clinics, hospitals or home, which is an accepted phase of medical care in this country, for those able to pay for such service. Although physicians in private practice, because of their training, numbers and relationships to their clientele, constitute the one group which is potentially most capable of applying the principles of preventive medicine to the habits and circumstances of the individual, the public generally is not yet accustomed to demand or pay for such guidance in the application of these principles to personal health.

"For these reasons honest, consistent, and cooperative effort should be made by the health authorities, the organized medical profession, and private groups interested in public health to develop public demands for preventive services by private physicians whether practicing as individuals or in organized groups. Health conferences or preventive health center medical services conducted by the health department, especially for mothers, babies and young children, are justified and desirable as:

"1. A means of creating a demand for such services.

"2. An agency for inaugurating proper standards for such services.

"3. A practice ground for physicians in the art of preventive medicine.

"4. A supplement to the preventive services of private practitioners.

"Participation by all private physicians in procedures of a personal and clinical nature recommended by the health department is indispensable in the interest of the health of the community.

"In deciding whether a given health procedure should be conducted by the department of health itself or by individual medical practitioners or other agencies, the primary consideration should be the welfare of the community. Where efficiency and economy are reasonably equal, preference should be given to a program which decentralizes health procedure so as to enlist the private practitioner in carrying them out."

Without the right of entry to search for sources of infection, to isolate the sick and supervise susceptible contacts, and without the power to control the ignorant, superstitious, willful, vicious and non-cooperative patient or carrier of communicable disease we should be helpless to make effective our precise information as to origin and conveyance of most of the communicable diseases. Here is the true marriage of government and medicine, the humane and wel-

come use of the police power of the state to prevent disease where the physician and his patient are the willing collaborators.

Without control of the physical environment of man, including what he needs to satisfy his natural hunger and thirst, our records of disease and our management of the infected patient would be largely frustrated. Man and woman might chlorinate their drinking water and pasteurize each bottle of milk they use, but they would not in fact. Whether in shop or factory, or in home and school and place of public assembly, the control of environmental sanitation of man's physical envelope is a foundation stone without which the superstructure of the physician's preventive services might prove to be but futile gestures.

Without the public health laboratory neither the sanitarian or epidemiologist of the health department, nor the physician to the sick and the healthy, could be assured of the aid of early, accurate, prompt diagnosis, and that safeguarding of water and milk upon which the lives of the multitude as well as of the individual and family group may at any moment depend.

Without the encouragement, the interest and concern, and for the economically disadvantaged the actual personal services for maternity, infancy and childhood, provided by the health department, the public and the medical profession would have made less progress, and a part at least of the community would have gone without protection.

Without the pulpit, the sounding board, the prestige and circumstance of the health officer much of the information and educational publicity essential for general understanding of the people's own assets and hazards in matters of health would be but scattered voices crying in the wilderness of popular indifference.

THE PERSONAL AND SOCIAL OBJECTIVE

I deem the prevention of disease to be the natural ambition of everyone educated in the medical sciences and trained in the art of professional services of the physician. So great have been its triumphs, so consistent and revolutionary the results of but a scant century of practical endeavor that I find myself cold and resistant to the political propaganda of the moment which would have us believe that a third or more of our people are disadvantaged by medical neglect.

Among the causes of human misery and disease are factors of inheritance, of economics, of international injustices, war and abuse of racial and national minorities, with which neither the physician, nor any other profession, nor yet any form of government has proved competent to deal.

Our way is that of science applied appropriately to each fellow-being according to his need.

Salvation by mass attack, and by compulsory acceptance of government medical care of all persons, sick or well, our medical mind and spirit rejects as impractical and unpromising, and in other hands pitifully unproductive of substantial benefits to science or to the citizen.

The slow way, the hard way, but the sure way, we believe as physicians, will be that of education and the development of human character. In this we must play the role of doctor, teacher of human biology, companion to each human life from the mating of man and woman to the end of the days of their succeeding child.

Plans for the practice of preventive medicine, whether by the individual physician or by civil government, or as is best by the collaboration of both, depend first upon reasonably accurate and comprehensive knowledge of the prevalence of the particular disease or disability, the natural history of its mass expression, its distribution along the path of life. The medical statistician of vital phenomena is the public accountant of the human family.

Our second resource is that of specific immunity, in which field we still lack proof of optimum dosage, frequency, intervals of repetition, and such useful material as will reduce the annoyance of reactions to a minimum.

A third element in our present progress has been improvement in the delicacy and reliability of diagnostic procedures which have led to a wider and more effective use of the periodic health examination to reveal pre-clinical stages of disease.

A fourth factor is the development of case-finding methods which will be both reliable and inexpensive, whether for tuberculosis, syphilis, malaria, hookworm disease, diabetes, specific avitaminoses and allergies, or cancer, and the carrier states of dysentery and a variety of parasitic guests upon or within the human body.

The time seems to be approaching when for not more than 25 cents, a reliable serological test for syphilis and a permanent x-ray film of the chest can be provided at public expense for whole population groups.

If we can identify persons infected with syphilis and those with significant pulmonary tuberculosis for so modest a sum we shall find that we cannot afford to go without the information.

The concern of preventive medicine is with the controllable events of human experience which precede the stage of disturbance of structure or function which we call disease.

The scope of preventive medicine is limited only by our ignorance of the prevalence and the avoidable causes of disabilities or disease. The methods of preventive medicine are both those organized under public authority and such as are best used by the physician in his private capacity.

Neither the teaching nor the practice of medi-

cine today will meet its social or professional opportunities and obligations unless each physician whatever his field of practice, aggressively explores the possibilities of prevention of each ill he is asked to diagnose and treat, and takes advantage of every appropriate occasion to persuade his patients to call upon him to keep their health as they expect him now to bring them safely through their sicknesses.

Eighteen years is but a moment in the history of medicine, and yet during the period since the American Medical Association in 1922 dedicated its influence to the promotion of preventive medicine by the encouragement of periodic examination of presumably healthy persons, such triumphs of public and private medicine have been recorded, particularly in North America as make the achievements of earlier decades seem insignificant.

Many have been the new resources added to the physician's earlier skills, and great has been the contribution of the organized powers of civil government to protect the people's health, but it is to the patient, the health client of medicine today, the parents and children of American homes, that we turn with confidence in their understanding of the new role, the hope, the certainty of usefulness of preventive medicine. While demand upon the physician and surgeon, and for each included specialty was of but one kind, to heal the sick, every doctor's professional career consisted of a perpetual saturation in disease.

Today careers of enduring worth and satisfying independence are drafting an increasing army of medical graduates to serve the healthy best by teaching the laws of right living.

It seems to me that no greater tribute could be paid by a nation to the medical philosophy of our recent generations than is recorded in the continuous and consistent improvement in every index of health and in the prevalence of each known preventable disease during the years of the great economic and social depression since 1929.

Unless all signs should deceive us, we of the United States are likely to complete the year 1940 with a greater security of life against disease than even that which prevailed in the years 1939 and 1938 with their unprecedentedly favorable record. The only serious threats to still further gain in improving the quality and average duration of human life among us, come on the part of the government from those who crave the power to dispose of the medical profession as a direct instrument for social and economic betterment, and from such elements in the medical profession as measure success by what they get as they pass through life rather than what they give while sharing their knowledge with all who seek it.

Efficacy of Sauer's Vaccine

A Comparison of the Incidence of Pre-School Pertussis in a City With High and in One With Low Percentage of Immunization

JUSTIN A. GARVIN, M.D.

THERE is a wide difference of opinion among physicians as to the prophylactic efficacy of Sauer's whooping cough vaccine. A number of well controlled surveys^{1,2,3} indicate that in a high percentage of cases it will prevent whooping cough for at least a few years.

On the other hand Doull and his associates⁴, using a vaccine prepared from phase I Hemophilus pertussis with a slight variation from Sauer's method, obtained results from which they concluded that their vaccine only slightly lowered the incidence rate, but may have made the cases somewhat milder.

In this paper a different approach is used in attempting to evaluate the merit of Sauer's vaccine as a preventive of whooping cough. Two cities have been selected for comparison. Ideally these cities should be adjacent and of approximately equal size, one having a high percentage and the other a low percentage of its pre-school children immunized against whooping cough with Sauer's vaccine. Unfortunately cities of equal size meeting the other requirements were not available so a metropolis and a contiguous residential suburb had to be used.

Cleveland (population 1,000,000) does not offer whooping cough immunization in any of its health centers or in any of its hospital out-patient departments. Consequently a small percentage (estimated at 10 per cent) of its pre-school population has received Sauer's whooping cough vaccine. Whooping cough is endemic in Cleveland.

Adjacent to Cleveland is Shaker Heights, a residential suburb of 25,000 in which the majority (estimated at 75 per cent) of infants are routinely given Sauer's whooping cough vaccine at, or a few months before, one year of age. As this procedure has been in effect for the past four or five years a large part of its present pre-school population over one year of age is presumably immunized against whooping cough.

From data secured from the health departments of these two cities and from population statistics kindly furnished by Mr. Howard Whipple Green of Cleveland, two tables and a graph have been constructed showing the yearly incidence per 100,000 population of whooping cough in children under five years of age during the past 11 years. In Shaker Heights the graph rather accurately represents the actual number

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of cases of whooping cough as there are few unreported cases. In the metropolis of Cleveland there is unquestionably a larger percentage of unreported whooping cough so the Cleveland figures and graph line should be somewhat higher than is indicated.

From Table I it is evident that the incidence in Shaker Heights was above that of Cleveland from 1929 to 1935 inclusive except for the year

TABLE I
Incidence (per 100,000 population) of pertussis in children under five years.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Shaker Hts.	397	127	471	287	198	365	182	54	74	21	45
Cleveland	189	164	198	270	130	229	131	206	140	167	157

1930. In 1936 the Shaker Heights incidence showed a marked decrease which has continued for four years.

The Cleveland incidence varies considerably but there is no striking decrease.

In 1934 pediatricians in the Cleveland area began to use Sauer's vaccine and its use has progressively increased since then. At first many pre-school and some older children were given the vaccine but now the procedure is largely limited to infants.

It seems reasonable to suppose that the Sauer vaccine given in 1934 and 1935 would not have a great effect on the incidence of pre-school pertussis in those years so they have been included with the five preceding years to make a seven year period (1929-1935).

The remaining four years (1936-1939) form a second group.

Table II shows that in Shaker Heights during the 1936-1939 period when Sauer's vaccine was being used extensively (its use was begun in

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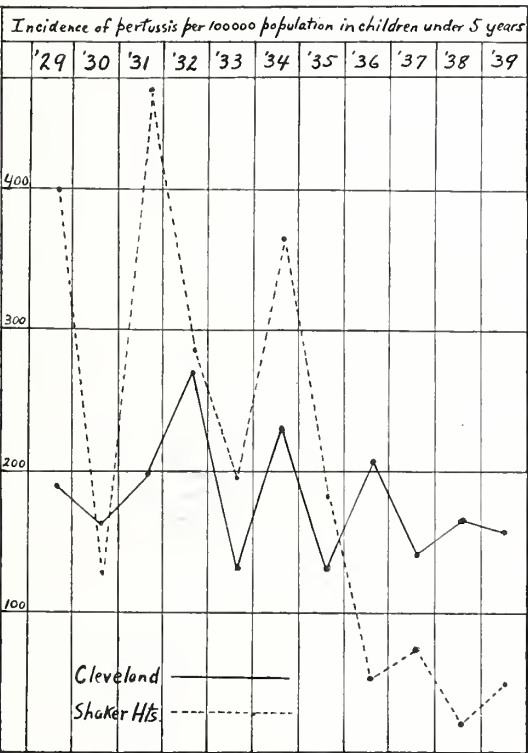
1934) the yearly average per 100,000 in children under five years of age was 48, a decrease of 83.4 per cent from the yearly average of the preceding seven year period (1929-1935). In

TABLE II
Yearly average incidence (per 100,000 pop.) of pertussis in children under 5 yrs.

	1929-1935	1936-1939	% decrease
Shaker Heights	289	48	83.4
Cleveland	187	167	10.7

Cleveland where the use of Sauer's vaccine is quite limited the difference between the periods mentioned was 10.7 per cent.

The statistics in Table I are also presented in graphic form:



There is a peaking of the solid line (Cleveland) every second or third year and a distinct progressive reduction in the heights of the peaks beginning in 1932. The valleys during this same period are also less marked. The trend is slightly downward.

The broken line (Shaker Heights) peaks in 1929, 1931, and 1934. It drops in 1935, then falls far below any previous level in 1936, rises a little in 1937, drops sharply in 1938 and rises again in 1939. During the last four years it remains considerably below the Cleveland line.

COMMENT

The estimates of the percentages of pre-school children in the two cities receiving Sauer's vaccine are only approximate. Dr. Harold Knapp,

Cleveland's Commissioner of Health, feels that the figure for Cleveland is probably under rather than over 10 per cent. In Shaker Heights during 1938 about 60 per cent of the cases of communicable diseases were reported to the Health Department by pediatricians. As nearly all of them and many other physicians use Sauer's vaccine routinely it was felt that 75 per cent was a conservative figure.

It is recognized that certain children may be only partially immunized by Sauer's vaccine so that if they develop a long continued cough it is difficult to tell whether or not they have pertussis. Some of the cases are not reported as whooping cough and are not included in health department statistics. Fortunately cases of this type, which continue to be hard to diagnose throughout their course, are usually not a menace to the patient although they may constitute something of a public health problem.

This paper was prepared nearly a year ago to include the decade 1929-1938. Because the incidence of pre-school pertussis reached such a low figure in Shaker Heights in 1938 (five cases or 21 per 100,000), it was decided to extend the period for another year. This explains the use of the awkward eleven-year period. Should the infants of Cleveland and Shaker Heights continue to receive Sauer's vaccine in about the same degree that prevails today, it is hoped that a report will be made three or four years from now on the further trend of whooping cough among pre-school children in these cities.

CONCLUSION

The use of Sauer's vaccine to prevent the development of whooping cough during the pre-school period seems justified.

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Limitations of the Tuberculin Test

The attempt to divide all mankind into two groups, infected and not infected, is futile and probably responsible for most of the present confusion. Two other groups must be recognized: (1) those infected, not yet positive, but to be positive shortly thereafter, and (2) those infected and previously positive, but now negative. (A possible fifth group would include those who are infected and never develop a positive reaction.)

Chronic Nonspecific Urethritis in the Female

F. C. HENDRICKSON, M.D.

CHRONIC nonspecific urethritis in the female is a very common condition but unfortunately is not often recognized. Perhaps the main reason for lack of medical attention is the mild nature of the disease in most instances. This study is based on 90 cases observed in office practice during the past two years.

The first extensive clinical and pathological studies made in this country were by Folsom about 10 years ago. He believed that small infected glands in the subepithelial regions were the seat of the trouble. Later investigators were unable to find any true subepithelial glands. Infection of the paraurethral glands, however, has been recognized for many years as a common lesion. In the presence of chronic inflammation the caliber of the urethra becomes diminished although true stricture as it is found in the male is uncommon. When stricture does form it is usually at the meatus, possibly as a sequel to chronic abscess of the paraurethral glands. Narrowing of the entire urethra is believed to be due to a diffuse fibrosis and infiltration of the subepithelial tissues.*

The chief predisposing factors are parturition and gonorrheal infection. During parturition the urethra and the sphincter muscles are in all cases pinched against the pubes. It is not surprising that injury frequently results.

The symptoms arising from infections of the lower parts of the urinary tract very closely resemble those associated with disease of the reproductive organs and it is imperative, therefore, in most cases to make urological and gynecological examinations at the same time.

The most common subjective symptoms of chronic nonspecific urethritis are pain and difficulty in urination. In most cases the urine is clear and almost free from leukocytes, even in the presence of chronic abscess of the paraurethral glands. If the urethra is stroked digitally and especially if the paraurethral glands are massaged against the arch of the pubis, the presence of pus will be detected. Abscess of the paraurethral glands causes severe dysuria that may persist for years due to the tendency of the abscess to become encysted. If residual urine is present it is usually infected and alkaline although the amount of residuum is generally not more than 20 cubic centimeters. Twenty-one of the cases reported had residual urine. Complete retention of urine rarely occurs unless cord bladder or some other complication is present.

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Cystoscopy shows characteristic lesions in severe cases. The inflammation is most apparent at the internal urethral orifice which is often surmounted by pseudopapillomata. These may extend up over the trigone where they appear more like granules or semitransparent papules. A pseudo-membranous mucoid plaque may cover the trigone. Hypertrophy of the interureteric ridge and trabeculation of the bladder are found occasionally in cases having residual urine. Mild cases show none of these lesions.

In making the diagnosis confusion often exists with regard to simple cystitis, pelvic inflammatory disease, and relaxation of the pelvic floor. Pain on catheterization should make one suspect urethritis. Marked urinary complaints in the absence of pyuria is also presumptive evidence of urethritis. Narrowing of the caliber of the urethra to 22 F. or less is practical proof of the condition. Chronic urethritis and chronic endocervicitis often exist together but it seems likely that the endocervicitis is in many cases the primary lesion.

Many patients suffer traumatic urethritis from parturition without showing any evidence of relaxation of the pelvic floor. Of the 90 cases reported here only six had cystocele. Conversely not every case of cystocele has chronic urethritis. Neither does cystocele always cause difficulty in emptying the bladder. It is a grave mistake to hastily advise surgical repair of every cystocele merely because the patient complains of dysuria. If the dysuria comes from a chronic urethritis the operation will be futile. Every patient that is to undergo surgery for the relief of cystocele should first have the urethra calibrated and the bladder catheterized to determine the quantity and character of the residual urine.

Many hysterectomies are being done in futile attempts to cure complaints referable to the urethra and bladder. On the 90 cases reported 43 pelvic operations had been done. Obviously some of these operations were ill advised. Nearly all of the patients seen had received some inef-

*Submitted March 27, 1940.

fectual medical treatment such as irrigations of the bladder, hot baths, vaginal tampons, and a large variety of drugs to sterilize the urine. Many patients have been labeled neurotics merely because the doctor could not find pus in the urine.

Dilatation of the urethra gives remarkable relief in chronic urethritis. Abscess of the para-urethral glands may be evacuated by massaging over a sound. The female urethra tolerates larger

the internal orifice. Residual urine may sometimes be eliminated by dilatation.

If residual urine persists after dilatation the dysfunction may lie in the neuromuscular mechanism. Transurethral resection of part of the internal sphincter offers promise of relief in a certain number of these cases provided they are suffering from a true obstruction and not from cord bladder. Six cases of various types of obstruction were operated on with satisfactory results in five. The McCarthy prostatic electro-tome with certain modifications has proved satisfactory for this operation. Incontinence of urine following this operation has been reported. It is probably due to resecting too far out in the urethra thereby injuring the external sphincter.

CONCLUSIONS

(1) Chronic nonspecific urethritis in the female is very common and should be suspected when dysuria is not accompanied by pyuria, or where catheterization is unusually painful.

(2) Dilatation of the urethra is a very effective treatment. Complications such as pseudo-papillomata and cystitis should be treated by fulgeration and urinary antiseptics.

(3) It is hoped that the general practitioner will more often recognize and treat this common ailment.

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Table 1.

Number of complications encountered.

Cystitis.....	35
Residual urine.....	21
Stricture.....	17
Skene's abscess.....	14
Endocervicitis.....	14
Cystocele.....	6
Contracture of neck.....	5
Senile vaginitis.....	3
Caruncle.....	2
Diverticulum.....	2
Bartholin's cyst.....	1
Incontinence.....	1
Trichomoniasis.....	1

instruments than the male and in the average case a maximum of 34 F. may be safely attained within three or four weeks. The Kollman dilator gives quickest results with least pain. Topical anesthesia previous to dilatation is appreciated by the patient. A mixture of 20 per cent cocain in lubricating jelly applied in the urethra for 10 minutes on a tightly wound cotton swab is fairly effective. No instances of cocain poisoning or laceration of the urethra have been encountered. There is probably very little danger of producing

Table 2.

Operations done previously.

Hysterectomy.....	10
Perineorrhaphy.....	8
Suspension of uterus.....	3
Oophorectomy.....	3
Hemorrhoidectomy.....	3
Salpingectomy.....	3
Appendectomy.....	2
Dilatation of ureter.....	2
Cautery of cervix.....	2
Unknown operation.....	2
Curettage of uterus.....	1
Amputation of cervix.....	1
Nephrotomy.....	1
Radium for caruncle.....	1
Perirectal abscess.....	1
Total.....	43

incontinence by dilating the urethra up to 32 or 34 F. in the average case. Most of the patients reported here were treated solely by dilatation. Patients having pyuria received in addition some urinary antiseptic. Four patients received a light fulgeration to destroy pseudopapillomata near

Experiments to Prevent Silicosis

Experiments are being carried on with the inhalation of aluminum dust to prevent silicosis. Metallic aluminum on being converted into hydrated alumina reduces the toxicity of quartz in tissues chiefly by coating the quartz particles with an insoluble and impermeable coating. Aluminum dust may be inhaled independently of the silicious dust. In lungs where the hydrated alumina is shown on staining to be intimately and uniformly mixed with the silica particles, fibrosis has never been found.—J. J. Dewey et al., Canadian Med. Assn. Jour., Mar., 1939.

Reducing Appetite in Treating Obesity; a Rational Use For Propadrine Hydrochloride

LEON S. HIRSH, M.D.

IRRESPECTIVE of whether one considers obesity to be the result of inactivity, the habit of overeating, or to be due to endocrine dyscrasia, one of the problems that very often arises is that of controlling the appetite of the patient. It is certain that cutting down on the food intake for a sufficient period of time is of vital importance in treating or preventing obesity.

There are many reasons why patients should wish to lose weight, or what is more important, prevent adiposity. Much has been written concerning the production of obesity by the various glands of the body such as the thyroid, pituitary, and ovary, or by encephalitic lesions, hypothalamic lesions, brain tumors, etc. Aside from esthetic and social aspects, patients may wish to lose weight because of the danger to the general health or the cardio-vascular system, preparatory to an operation or because of orthopedic considerations. Be these things as they may, it is a simple dictum that to reduce one must eat less.

It follows therefore, that to be able to control the patient's appetite is a distinct advantage to the physician as well as the patient. Certain of the newer drugs are known to have marked influence on what is known as appetite. How these drugs produce their pharmacologic action is the basis of many theories today, but these require further study. Some writers speak of decreasing the secretion of hydrochloric acid, others of slowing gastric motility, etc. However, suffice it to say that drugs of the ephedrine type do have this action, but like all drugs, ephedrine as well as some of the other drugs of this group, have certain undesirable side-actions, producing nervousness and insomnia in susceptible individuals. However, propadrine hydrochloride,* is essentially free from these side-actions and is therefore admirably suited to the purpose.

For some time the author has followed the method of treating obesity by means of low caloric diet, but maintaining adequate intake of necessary vitamins and minerals, together with small regular doses of thyroid substances and injections of posterior pituitrin at frequent intervals, the appetite being controlled by the use of adequate doses of propadrine hydrochloride given orally before meals.

That it produces these results satisfactorily

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without the evils of nervousness and sleeplessness is exemplified by the following cases:

Case 1. Miss S. E.—The case of a 13-year-old school girl who, for her age and height, should weigh 95 lbs. according to her school athletic director, who had been endeavoring to reduce her by means of calisthenics. On January 6, 1939, she weighed 141 lbs. On this regime of exercise, but eating according to the dictates of her own mind, she progressed in such a manner that by October 19, 1939, she weighed 161½ lbs. at which time she consulted her physician because of a broken toe. Treatment was instituted at this same time to control the weight. The girl was given a diet of 1000 calories and placed on a routine of 1 grain thyroid three times a day and a hypodermic injection of 1 cc. posterior pituitrin every four or five days. By November 16, 1939, her weight had been reduced to 149¾ lbs. By December 8, 1939 (she was now going back to school), she was complaining of hunger all the time and was promptly given ¾ grain capsules of propadrine hydrochloride and instructed to take one 20 minutes before each meal. By December 23, 1939, she no longer was complaining of appetite and on January 7, 1940, her weight was 135 lbs.

Case 2. Mrs. J. W. B.—The case of a 45-year-old housewife afflicted with hypothyroidism. This patient first presented herself on October 30, 1939, weighing 191½ lbs. She was given a diet of 1200 calories, and was placed on a routine of 1 grain thyroid substance three times daily and injections of 1 cc. obs. pituitrin every four days. By November 29, 1939, she was complaining of hunger. Her appetite was not being satisfied. She was given ¾ grain capsules of propadrine hydrochloride and advised to take one 20 minutes before each meal. By December 9, 1939, her weight had been reduced to 176½ lbs. and she no longer was troubled with an appetite. By January 22, 1940, her weight had been reduced to 164 lbs. and she was much more satisfied with her condition.

Case 3. Miss V. E.—A 22-year-old X-ray technician. September 26, 1939. For the past eight months has been constantly exposed to X-ray in the course of her work, and is now complaining of amenorrhea and obesity with an ever increasing weight, and an all too good appetite. At the time of this treatment, although very small in stature, her weight was 148½ lbs. She was advised to take 1 grain thyroid three times daily and

Submitted April 15, 1940.

*Propadrine hydrochloride is a product of Sharpe and Dohme Laboratories.

$\frac{3}{4}$ grain propadrine hydrochloride 20 minutes before meals. By 10-3-39 her weight had been reduced to 144 $\frac{3}{4}$ lbs. and she stated she did not seem to have much of an appetite as long as she took the capsules. She changed positions and has not been seen since.

Case 4. Mrs. R. B.—The case of a 38-year-old housewife with gall-stones who, while less than 5 ft. tall, weighed 168 lbs. when first seen on October 6, 1939. Because of the extremely heavy abdominal wall, and the hazards that surgery would entail with such obesity, it was deemed advisable to reduce weight before submitting to surgery. Accordingly she was placed on the usual routine of regulated diet, with small doses of thyroid and injections of posterior pituitrin. By November 17, 1939, she was complaining of appetite and promptly was given $\frac{3}{4}$ grain capsules of propadrine hydrochloride to be taken 20 minutes before meals. Without further difficulty she was subsequently reduced to 150 lbs.

Case 5. Miss K. P.—The case of a 44-year-old who for the past year and half has been constantly putting on weight. She was first examined March 8, 1939, when her weight was found to be 198 $\frac{1}{2}$ lbs. She was placed on a diet of 1500 calories and a treatment of 1 grain thyroid three times a day, together with injections of 1 cc. obs. pituitrin every four days were instituted. By May 4, 1939, her weight had been reduced to 176 lbs. but she was complaining of always being very hungry. She was given $\frac{3}{4}$ grain capsules of propadrine hydrochloride and advised to take one about 20 minutes before each meal. By May 23, 1939, her weight had been reduced to 172 lbs. and as she stated, "had no appetite". By July 16, 1939, she was again complaining of appetite, her weight at this time having reached 163 $\frac{1}{2}$ lbs. She was again given propadrine hydrochloride in the same dosage and her weight by July 20, 1939, had been reduced to 155 lbs., where she was satisfied with her condition, and treatment was discontinued.

Case 6. Mrs. R. S.—The case of a 23-year-old who has constantly put on weight since her marriage. At the date of her first visit June 20, 1939, she weighed 187 $\frac{1}{2}$ lbs. She was placed on a 1500 calory diet and was given 3 grains of thyroid daily and received injections of 1 cc. pituitrin twice weekly. By July 22, 1939, she was complaining of appetite—the diet was not satisfying her hunger. She was given a prescription for $\frac{3}{4}$ grain capsules of propadrine hydrochloride and advised to take one 20 minutes before each meal. By August 7, 1939, she stated she had no appetite and her weight was 171 lbs.

CONCLUSION

The fact that it is possible to reduce the patient's appetite, should not be overlooked, in the care of the obese individual. The satisfactory action of propadrine hydrochloride and its freedom from undesirable side actions in the doses required, would seem to make it a drug of choice in treating these patients.

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General Medical Aspects of Allergy

A patient with hay fever always has a potential shock organ in the bronchial tubes and more than 50 per cent of untreated hay fever patients eventually develop asthma. This close association between the individual allergic manifestation as well as their constitutional character demonstrates the fallacy of utilizing local treatment alone in these conditions. This is illustrated in recent attempts to cure hay fever by zinc ionization or to treat asthma by lipiodol instillation with the hope that the mucosal cells may be so modified that they will no longer react with pollen or other allergens. These methods fail to change or alter the constitutional character of the individual so as to make him less sensitive to the offending allergen.

Finally, a word as to diagnosis in allergic diseases. Here an attempt is made to search out the offending allergen so as to eliminate it if possible. This can be accomplished only by means of a complete study including history, skin and other allergic tests, and therapeutic or clinical trial. Such a study must be painstaking and thorough and must be completely coordinated to accomplish the best end-results. Too frequently practitioners depend for diagnosis entirely upon skin test evidence. Such skin tests often are performed by individuals who not only are inexperienced in the technic of these methods but are lacking in an even more important essential; namely, the ability or knowledge to interpret the results obtained.

I am sure that no one in this audience would be content to accept a laboratory report of albuminuria as definite indication of the presence of nephritis without at least getting other evidence or discovering other reasons for its existence. Such a procedure likewise is essential with positive skin tests which may represent past, present, or even future sensitivity. Even more important is the interpretation of negative skin test reactions. No one would exclude the possibility of angina pectoris in a patient with typical symptoms merely because the electrocardiogram was negative. So, too, patients may have clinical symptoms due to sensitivity to certain substances, especially foods, even though the skin test is negative, as can be determined by clinical trial.

Proper interpretation of allergic tests and their co-ordination with the history and with clinical or therapeutic trial is absolutely essential, therefore, in the etiologic diagnosis of allergic conditions. This is best accomplished by thorough and complete study by trained or experienced observers and is a necessary prerequisite in the management of allergic patients.—Louis Tuft, M.D., Philadelphia, Pa.; *Pa. Med. Jour.*, Vol. 43, No. 8, May, 1940.

Scarlet Fever Immunization

A Review of Scarlet Fever Immunization Performed in St. John's Hospital School of Nursing During the Past Five Years

E. J. STEFANIC, M.D.

THIS is a comparatively short series of scarlet fever immunizations which I am presenting. The work, however, has been accurately correlated and conducted throughout by one person so that it may with profit, be added to other series reported.

Scarlet fever immunization has received its most recent and powerful stimulus from the researches of Dick and Dick of Chicago, beginning in the early part of the last decade. Though there is still considerable conflict of opinion between the Dicks, on one hand and other investigators, much progress has been made in this field of immunology, so that it would seem scarlet fever immunization, though not now, will within a short year or two, be applied in general, such as diphtheria immunization is now.

A brief definition and explanation of terms, to be used later, is in order. A toxin is usually an antigenic substance which is further distinguished by its toxic effect on tissue cells. An antigen is a substance which gives rise to the development of specifically reacting elements or anti-bodies in the blood serum or other fluids of an animal to which these substances have been administered parenterally. Thus antitoxin is formed in the blood serum of the inoculated animal and is present in the convalescent serum of the patients recovering from scarlet fever, for instance. This paper is principally concerned with the injection of scarlet fever toxin directly into the human body, that is, active immunization. The antitoxin itself may be used to produce passive though fleeting immunity (six days to three weeks), in contra-distinction to the former, which gives immunity from two to six years. The use of antitoxin serum finds its greatest value in the treatment of the early and acute symptoms of scarlet fever.

It is now generally believed that scarlet fever

Fig. 1

NON-HEMOLYTIC STREPTOCOCCUS
ALPHA TYPE
SUB-ACUTE BACTERIAL
ENDOCARDITIS
GAMMA TYPE
RHEUMATISM

is due to infection with hemolytic streptococci in susceptible individuals. Pathogenic streptococci may be roughly divided into two groups; the nonhemolytic and hemolytic.

The Author

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Figure 1—Shows the two main sub-divisions of the nonhemolytic type. The Alpha type of streptococcus causing subacute bacterial endocarditis is more commonly known as streptococcus viridans. Although it is believed that rheumatic fever is caused by the streptococcus of the Gamma type, these organisms are rarely found in the joints, and joint irritation and inflammation are probably due to exotoxin.

Fig. 2

HEMOLYTIC STREPTOCOCCUS
SCARLET FEVER
ERYSIPELAS
PUERPERAL SEPSIS

Figure 2—Shows the diseases due to hemolytic streptococci (Beta type). It is the Beta type of hemolytic streptococcus which has attracted our attention lately, because it is for this highly pathogenic group of organisms that sulfanilamide shows its real specificity.

At present 27 different serologic strains of hemolytic streptococci are known. A single one of these types may cause in one individual a septic sore throat, in another erysipelas, in another puerperal sepsis, scarlet fever, etc. In other words a specific streptococcal clinical picture is not due to any particular serologic type of hemolytic streptococcus. Obviously, therefore, a serum to be useful would have to be type specific. To date there is no satisfactory method for the rapid typing of hemolytic streptococci such as is the case with pneumococci.

TESTING

In the toxin which we use for Dick testing and for active immunization, three strains, named One, Two and Three, by the Dicks are incorporated.

The Dick Test consists of the intradermal injection of 0.1 cc. of toxin. For convenience sake the volar surface of the forearm is used. Occasionally it may be necessary to use other sites. Thus in the case of one of the nurses, who was

working in surgery, an allergic erythema was present on the upper extremities and to some extent over the whole body. The abdomen was chosen in this case. The site selected should be cleansed with soap and water, and dried. No dye antiseptic should be used. A tuberculin syringe should be employed and a sharp needle, length $\frac{1}{2}$ inch, gauge 26 (dry sterilized). Some men use a gauge 23 needle but this size would be too large in my opinion, especially in those cases where the skin is thin. If any of the toxin is injected subcutaneously the test is of no value and further testing must be deferred because of the modification in the erythematous areas which will occur, probably due to sensitization. I have in several cases retested after one week where the first test was not satisfactory to find the original site showing marked reaction, though it did not do so after the first test. Before inserting the needle it is advisable to have the bevel edge of the needle directed away from the skin and lined up with the "tenth cc. readings" on the syringe. The test should be read in not less than 20 hours or more than 24 hours, preferably about 22 hours.

A local reaction of 0.5 cm. or more is a positive reaction. Pseudoreactions due to sensitivity to bacterial proteins appear in certain individuals (adults) and usually occur later than the specified time. A control test may be employed using 0.1 cc. of normal saline or boiled toxin. Some men prefer to call any reaction, whatsoever during this time as positive and to determine the modification of the dose and number of injections on the size of the reaction which may reach 3 cm. or more. The 0.1 cc. of toxin contains one skin test dose (S.T.D.) which is defined as that amount of toxin which will cause a reaction at least 1 cm. in diameter following its intracutaneous injection in a majority of susceptible individuals.

IMMUNIZATION

Active immunization of Dick Positive individuals is carried out in the following manner when possible:

A. Five injections are given subcutaneously at weekly intervals.

B. The first injection contains..... 500 S. T. D.
The second injection contains..... 2,000 S. T. D.
The third injection contains..... 8,000 S. T. D.
The fourth injection contains..... 25,000 S. T. D.
The fifth injection contains..... 80-100,000 S. T. D.

making a total of 115,000 S.T.D. Two weeks after the final injection the individual is again Dick tested. The majority of persons are rendered Dick negative by this procedure.

REACTIONS

Reactions occur commonly, especially after the earlier doses. The severity of these reactions may be modified in three ways.

A—If a tested individual shows a large size area of erythema or induration or both he may

be regarded as unusually sensitive to the toxin and a prolonged immunization procedure may be employed beginning with less than 500 S.T.D. doses and using about eight to ten injections (in place of the standard five injections) to administer the total immunizing dose of 115,000 to 135,000 S.T.D.

B—Immunization may be carried on in the usual manner until some reaction severe enough will necessitate dividing the remainder of the total immunization dose into more injections than ordinarily used, and of course in using less than the usual dose indicated.

C—0.1 cc. of adrenalin chloride may be added to the test dose and injected at the same time.

In this series, I have used the latter two methods though in the future (and considering the past) a combination of all these methods will be used. Completion of immunization procedures interrupted by sickness or operative procedures have been completed after the nurse returned to normal activities.

CONTRA-INDICATIONS

Contra-indication for immunization were considered as follows:

1. The presence of scarlet fever.
2. Scarlet fever contacts whose last exposure dates back less than one week, unless nose and throat smears were negative for hemolytic streptococcus.
3. Individuals who have not had a thorough physical examination (our nurses undergo a complete physical examination just before entrance and just before immunizations are taken).
4. Individuals with a history of rheumatic fever.
5. Individuals with a history of renal diseases especially if albumin and other constituents are found in the urine.

Fig. 3

STUDENT NURSES	118
DICK TESTS	118
Positive	44
Negative	74
IMMUNIZATIONS	44
Successful	41
Unsuccessful	3

Figure 3—These tests were made on entrance and the results show about the usual proportion of Dick negative and positive in such a group.

Immunizations were successful in all but three cases.

Fig. 4

DICK TEST ON ENTRANCE	
Negative	74
Positive	44
DICK TEST 2 YRS. AFTER ENTRANCE	
Negative	114
Positive	4

Figure 4—This figure illustrates the fact that the great majority of individuals can be ren-

dered Dick negative by active immunization for at least two years.

Fig. 5

STANDARD FIVE INJECTIONS AT WEEKLY INTERVALS			
TOTAL	17		
First	500	S. T. D.	
Second	2000	S. T. D.	
Third	8000	S. T. D.	
Fourth	25000	S. T. D.	
Fifth	80000	S. T. D.	

Figure 5—The standard five injections given subcutaneously at weekly intervals are here illustrated. S.T.D. stands for Skin Test dose which is that amount of toxin which will cause a reaction at least 1 cm. in diameter following its intracutaneous injection in a majority of susceptible persons.

Fig. 6

TOTAL NUMBER HAVING MORE THAN STANDARD FIVE INJECTIONS		
A — SIX INJECTIONS	19	
B — SEVEN INJECTIONS	8	
TOTAL NUMBER HAVING LESS THAN STANDARD FIVE INJECTIONS		
	0	

Figure 6—In 27 of the 44 nurses immunized more than the standard five injections were necessary; 19 having six injections and eight having seven injections. I have never used more than seven injections. The first case in which I was not able to make five injections occurred quite recently this year and is not included in this series. She showed albumin (two plus) after the third injection.

Fig. 7

FIRST INJECTION MODIFIED	0
SECOND INJECTION MODIFIED	3
THIRD INJECTION MODIFIED	14
FOURTH INJECTION MODIFIED	15
FIFTH INJECTION MODIFIED	19

Figure 7—This figure shows the number of times it was necessary to modify standard doses, because of reactions. As indicated all nurses received the standard first doses, but modification was necessary frequently after that.

Fig. 8

COMMON REACTIONS	
Joint pains	
Malaise	
Nausea	
Itching	
Vomiting	
Local reaction	
Fever	
Shoulder pains	
Swollen eyelids	
Local tenderness	

Figure 8—The reactions have been classified into three groups—Common—Other Reactions—and Uncommon Reactions. Notice the high posi-

tion occupied by joint pains, the reaction that so often calls for future modification of dosage. Malaise and nausea are frequent reactions although they do not require time off duty as the first one does.

Fig. 9

OTHER REACTIONS	
Muscular pains	
Ankle pains	
Urticaria	
Body rash	
Headache	
Knee pains	
Chills	
Local swelling	

Figure 9—This figure just shows some more of the many reactions one can look for.

Fig. 10

UNCOMMON REACTIONS	
Backache	
Severe local reaction	
Malaise with temp.	
Pain in popliteal space	
Macular rash	
Severe general reaction	
Slightly inflamed arm	
Diarrhea	
Coryza	
Albuminuria	

Figure 10—These reactions are much less common than the preceding ones. Severe general reactions occur very rarely, fortunately. Albuminuria is a contraindication to further immunization.

Fig. 11

STUDENT NURSES	118
DICK TESTS	118
Positive	37.3%
Negative	62.7%
IMMUNIZATIONS	37.3%
Successful	93.2%
Unsuccessful	6.8%

Figure 11—This figure shows percentages instead of actual figures. The high per cent (93.2 per cent) of successful immunizations should be noticed.

Fig. 12

DICK TEST ON ENTRANCE	
Positive	37.3%
Negative	62.7%
DICK TEST 2 YRS. AFTER ENTRANCE	
Negative	96.6%
Positive	3.4%

Figure 12—This figure demonstrates that two years after the immunizations 96.6 per cent were Dick negative.

Fig. 13

STANDARD FIVE INJECTIONS AT WEEKLY INTERVALS	38.6%
TOTAL NUMBER HAVING MORE THAN STANDARD FIVE INJECTIONS	61.4%
A — SIX INJECTIONS	43.2%
B — SEVEN INJECTIONS	56.8%

Figure 13—61.4 per cent were immunized with the standard five injections. Of the remaining 38.6 per cent—43.2 per cent required six injections, 56.8 per cent seven injections.

Fig. 14

REACTIONS	{	No	71.1%
		Yes	28.9%
SEVERE REACTIONS			21.4%
MODERATELY SEVERE REACTIONS			42.9%
MILD REACTIONS			35.7%

Figure 14—Severe reactions were encountered in 21.4 per cent of the cases—slightly more than one fifth. These reactions were severe enough to require the nurse to remain off duty one to two days.

Fig. 15

COMMON REACTIONS	
Joint pains	56.9%
Malaise	47.9%
Nausea	22.6%
Itching	14.4%
Vomiting	13.2%
Local reaction	14.1%
Fever	9.7%
Shoulder pains	9.7%
Swollen eyelids	9.7%
Local tenderness	9.4%

Figure 15—Joints pains occurred in 56.9 per cent of the cases.

Fig. 16

REACTIONS	
AFTER FIRST DOSE	22.5%
AFTER SECOND DOSE	25.4%
AFTER THIRD DOSE	21.1%
AFTER FOURTH DOSE	9.9%
AFTER FIFTH DOSE	18.3%
AFTER SIXTH DOSE	2.1%
AFTER SEVENTH DOSE	.7%

Figure 16—Generally speaking this figure indicates that reactions occur somewhat more commonly after the earlier doses.

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CASES DIRECTLY EXPOSED TO SCARLET FEVER AND HAVING POSITIVE DICK TEST WITH NO DEVELOPMENT OF SCARLET FEVER	2.5%
--	------

Figure 17—2.5 per cent of this series remained Dick positive and belong to the group of unsuc-

cessful immunizations. Such nurses are advised to enter contagious work at their own risk. These did, and yet did not develop scarlet fever.

Fig. 18

CASES OF SCARLET FEVER	1.7%
CASE-A	
DICK TEST NEGATIVE ON ENTRANCE	
DEVELOPED SCARLET FEVER ABOUT TWO YEARS AFTER ENTRANCE	

Figure 18—This nurse was retested before leaving St. John's Hospital for City Hospital and was found Dick negative. She was also Dick negative during the acute stage of the disease which, of course, is an exception to the rule.

Fig. 19

CASE-B	
DICK TEST POSITIVE ON ENTRANCE	
IMMUNIZED (STANDARD FIVE INJECTIONS) AND BECAME DICK NEGATIVE 2 YRS. LATER DICK POSITIVE	
Contracted Scarlet Fever at City Hospital	

Figure 19—This was one of three Dick positive girls who entered contagion. Owing to unavoidable circumstances, she was not reimmunized. She developed scarlet fever—the other two did not. (33 per cent). Usual per cent given is approximately 14 per cent.

Only one of these nurses developed scarlet fever in spite of all precautions. This individual had on entrance to the School of Nursing a negative Dick Test—a negative Dick Test a few days before onset of the disease and was Dick negative during the acute stage of the illness.

Buschmann has reported the development of scarlet fever in six Dick negative individuals: Binson and Sompson have made similar reports and McGibbon has stated that almost one-fourth of his series of cases were Dick negative in the acute stage of the disease. This case does not by any means invalidate the reliability of the Dick Test, nor do the reports mentioned, for Anderson and Reinhardt (Mass.) presented data on 6,346 nurses and found that the attack rate was 12.8 per cent among those with positive reactions and only 0.7 of one per cent among those with negative reactions. (1.3 per cent in this series).

Two of our nurses developed scarlet fever. They were Dick positive however, and due to unavoidable circumstances were not immunized, otherwise there would not be one case of scarlet fever in this series.

Immunization with erythrotoxic toxoid has been unsuccessful. A toxoid is a toxin which has been treated with dilute formaldehyde, thereby losing much of its toxicity but none of its antigenic powers. The erythrotoxic toxin of hemo-

lytic streptococci does not react to the formal toxoiding process in the same manner as diphtheria and tetanus toxins do and the Dicks have gone so far as to state that there is no such entity as scarletinal toxoid. Zinsser disagrees in this instance with the Dicks though admits that whatever favorable results thus far obtained with toxoid are due to the fact that complete detoxification has not occurred in the preparations used.

The treatment of scarlet fever has no direct bearing on this paper, but the modern therapeutic concept should be briefly recapitulated.

Distinction must be made between the symptoms due to toxicity and those due to sepsis. That is the early acute stage and the stage of complications.

Many mild cases require no specific treatment, for the use of antitoxic serum has its greatest value in the early very acute and toxic state which ushers in the disease in some cases. Antitoxic serum has not proved of value in severe septic cases, however, which is to be expected since antitoxin has no antibacterial properties.

Dr. John Toomey uses Parke & Davis antitoxic serum in the early acute toxic stage and sulfanilamide for the later septic complications such as sinistis, otitis media, mastoiditis, cervical adenitis, etc.

Parke & Davis have obtained a great amount of concentration with this product. Such concentration is of considerable value as it tends to reduce the amount of serum sickness, which has been a deterrent to the free use of antitoxic serum. The old package contains 300,000 units in 20 cc., the new, the same amount in 10 cc. or less.

The use of the antitoxic serum to produce passive immunity has a restricted value. Toomey has reported cases of scarlet fever six to seven days after such immunization, though the administration of 10 cc. may give immunity for two to three weeks.

SUMMARY

1. The Dick Test when properly performed is a reliable qualitative test for susceptibility to scarlet fever in the great majority of cases.

2. Active immunization against scarlet fever produces many severe and unpleasant reactions so that it cannot as yet be employed generally. It is universally considered indicated for nurses and attendants in contagious hospitals.

3. In children the reactions may be just as severe but not as common as in adults.

4. No toxoid is available for immunization.

5. Active immunization against scarlet fever has made rapid, recent strides and it seems to me will be in general use in the near future when:

A—fewer doses will be necessary.

B—when a purer toxin can be obtained so as to lessen the severity of reactions.

6. Even at this date, active immunization with all its reactions is not as dangerous as a severe attack of scarlet fever, or even a mild attack with severe sequelae.

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Cortico-Sterone, Its Clinical Uses

There is no evidence that adrenal cortex extracts in doses of less than 10 cc. daily have any effect in Addison's disease. Since 10 cc. costs three dollars at present, the clinical use of such extracts is impractical. Fortunately, most patients can be maintained in good condition without extract by the use of large amounts of salt.

The latest addition to the therapy of Addison's disease is desoxycorticosterone, a synthetic preparation which has properties similar to those of natural cortical extracts. This product is potentially more available and less expensive than the extracts. The dose as reported in preliminary trials varies from 1 to 10 mg. per day. The substance is very sparingly soluble in water, and is therefore prepared in oil for subcutaneous injection. The most recent development takes advantage of this insolubility in aqueous media. Sterile pellets weighing 50 to 100 mg. each when inserted into the subcutaneous tissues have been found to dissolve at a fairly steady rate of 0.25 to 0.35 mg. per day. Thus three or four pellets would be expected to supply 1 mg. daily for approximately one year. The requirement is first determined for each patient by the use of the oil solution of the substance. Excessive doses have produced alarming anasarca which required treatment with salt-free diet and diuretics. There seems every reason to believe that this new therapeutic agent will prove very useful in the treatment of Addison's disease. It seems wise for the present at least to restrict its use, however, to carefully controlled cases because overdosage may have the serious consequence noted above, and it is possible that even moderate doses may suppress regeneration of native adrenal function. Corticosterone will undoubtedly be recommended for a variety of conditions other than Addison's disease. Chief among these are those conditions in which asthenia is a prominent symptom. Since in such conditions, suggestion often plays a prominent role, subjective improvement after the injection of corticosterone, or cortical extract, can hardly be taken as an indication that adrenal deficiency has actually been present. It would seem more rational, and much less expensive, to try the effect of large amounts of salt, since even in outspoken Addison's disease asthenia can be markedly improved by this procedure.—Paul Lavietes, M.D., New Haven, Conn.; Conn. State Med. Jr., Vol. 4, No. 5, May, 1940.

Twelve Years of Malaria Treatment in Dementia Paralytica

CHARLES L. LANGSAM, M.D.

THERE has been much written on the deleterious and the beneficial effects of malarial treatment in dementia paralytica since its inception in this country some 15 to 20 years ago. Any comprehensive review of the literature on the subject would be a tremendous undertaking and would only tend to obscure the purpose of this communication, which is primarily concerned with a general evaluation of the end result of malarial treatment of a large group of cases over a period of 12 years. The cases studied were those general paretics discharged from the Psychopathic Division of Cleveland City Hospital during the years 1927 to 1931 inclusive.

Earlier experiences with malarial therapy from the institution furnishing the present material have been reported in the literature.^{1,2} In one of these studies by Stone, particular emphasis was placed on the eventual outcome of a series of 151 cases. These findings were pertinent enough to justify a detailed review.

Cases	151
Dead	27
Home and Improved	77
(34 working steadily)	
Institutionalized and Improved	6
No Improvement	24
Growing Worse	17

Yule³ in 1931 asserted at the time of his report on malarial treatment before the Ohio State Medical Association, that it was too early to list dementia paralytica as a curable condition, for he saw that even in what was termed the best of remission, there was always noted a definite permanent change of personality.

McIntyre⁴ in 1938 reported that malaria may arrest the pathological process of dementia paralytica as far as the ravages of neurosyphilis are concerned, although a psychiatric recovery may not occur. He states that such cases may live as long as 14 years with a physical, but not a psychiatric cure. He does believe that malaria is important in the treatment of dementia paralytica.

In the five year period of this study there were in all 398 patients with dementia paralytica. This is an average of approximately 80 patients per year. Of the total number, 293 received malarial therapy. The remaining 105 either could not be successfully inoculated or treatment was not

The Author

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instituted due to some physical contra-indication. There were a negligible number who received any form of antiluetic chemotherapy.

Ninety-one patients died while at the hospital, 160 were discharged to their homes, and 141 were transferred to other psychiatric hospitals for further care.

It was thought wise to study further the above figures. The deaths which occurred at the Cleveland City Hospital were analyzed. All except 17 of these deaths were in patients who had received malaria at some time during this hospital stay.

The deaths were divided into three categories. First, there was the group which was considered to be directly due to the malarial treatment. Under this heading we included those cases which died during the course of their malarial treatment and where the temperature remained elevated over a period of 24 to 48 hours in spite of antipyretics of all sorts. Most of these patients either died a thermal death or developed a terminal bronchopneumonia. In addition, we included in this group two cases of intestinal perforation, several cases of rupture of the spleen, and one case of purulent pneumococcic meningitis reported by Karnosh and Williams.⁵

The second group comprised those whose course warranted the assumption that malaria played more than a contributory role in their lethal exodus. Included here were those cases that developed ascending urinary infections or bronchopneumonia within a month following the last malarial paroxysm.

Remaining was that group that died more than a month following their malarial treatment. In our opinion death here could not be ascribed to malaria directly, but undoubtedly it (malaria) played an important role in producing the debilitated condition which was responsible for the exodus.

These groups divided themselves as follows:

Total Number of Deaths	91
Directly due to malaria	20
Indirectly due to malaria	14
Not due to malaria	57

Read by invitation before the Section on Nervous and Mental Diseases, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14-16, 1940.

From the Neuro-psychiatric Division of Cleveland City Hospital and the Department of Nervous Diseases, School of Medicine, Western Reserve University.

Therefore, we see that 34 of the 91 deaths were either directly or indirectly due to malaria. There were in all 293 cases treated with malaria so that the death rate from malaria itself amounts to some 12 percent.

Those patients who were discharged to their homes, were further classified as to the degree of improvement they manifested at the time of their release. It is unfortunate that we were not able to have a follow-up study on these cases, but they returned to homes too widely scattered to make such a task feasible.

Only those persons who were able to return to work in their former occupations were considered as good remissions by a consensus of opinion of the house staff. Those patients who could return to work, but in a more menial capacity than formerly were considered as fair remissions. This grouping assumes a certain amount of personality disintegration. Then there were those patients who were well enough to be at home but needed watching and supervision, and were not able emotionally or intellectually to provide for themselves. This group was considered as slight remission. Finally, there was that group who were discharged at the insistence of their families and who were unimproved.

The discharges, therefore, according to the above classification divided themselves as follows:

Number of Discharges	166
Good Remissions	9
Fair Remissions	53
Slight Remissions	64
Unimproved	40

We should go further, and classify those who were discharged to their homes into two groups—those who did, and those who did not have malaria treatment. Out of the total of 166 patients there were 123 who received malaria and 43 who did not receive malaria.

Of the total of 123 who had malaria only eight patients or 6.5 percent developed a good remission. One of the 43 patients who did not receive malaria also developed a good remission. In like sequence, in those with a fair remission, we find that 32.5 percent received malaria while 30.2 percent were discharged without benefit of malaria. In the group showing poor remissions, the comparable percentages were 43.9 percent and 23.3 percent, while in those who were unimproved, the percentages were 17.1 percent as compared with 44.1 percent.

Taken as a group, without regard to the status of their condition at the time of discharge, we see that 123 or 74.1 percent of the discharges did receive malaria. There were a considerable number, 43 or 25.9 percent, who were discharged without the benefit of the malaria treatment.

The next large group of patients to be considered, are those who were transferred to one of the Ohio State Hospitals. They number 132

and included all of those patients transferred from Cleveland City Hospital, except nine who were sent to other states for further care.

We were able to follow these patients as to their final disposition up to August, 1939. Fifty of the total of 132, or 37.9 percent, had been discharged as improved enough to be out of a hospital. Forty of this group had malaria while 10 did not receive malaria. It was further found that those who had received malaria stayed in the State Hospital an average of eight months longer than those who had not received malaria.

Adding these discharges to those who were discharged directly from City Hospital gives us the following picture:

Total Discharges	216
Malaria treated cases	163
Non-malaria treated cases	53

This means that out of the 293 who received malaria, 163 or 55.6 percent, were eventually discharged, but 53 patients out of the total of 105 who did not receive malaria or 50.4 percent were also eventually discharged.

Forty-three of the patients who were sent to a state hospital died while there. The only significant fact here is that we found that the average length of hospital life of those who had received malaria was some 12 months longer than those who had not received malaria.

Finally there were 39 patients who were still at a State Hospital in August, 1939. Twenty-eight of these patients had received malaria, while 11 had not received malaria.

Any attempt to evaluate the preceding statistical data from a purely numerological standpoint would be pointless. The great majority of the patients studied here come from at least the lower half of the strata of society and most of them had had no previous antiluetic treatment. Many of the cases had no knowledge that they were even harboring the luetic infection. As a result, very few of these patients were early paretics. The impression is gained that various other series studied in other institutions from whence the majority of statistics are derived do not have any graver prognosis.

Wechsler states that "remissions amounting to permanent cures occur in about 30 percent of cases." It is a well known fact that prior to the malaria treatment, the outlook was usually fatal with death occurring within two to three years following the onset of clinical symptoms. Occasionally untreated cases have been reported which survived for from five to 10 years. Referring to our preceding data, we see that in that group which died in a State Hospital, those who were treated with malaria lived an average of twelve months longer than those who were untreated.

We also find in August, 1939, that there remained in the State Hospital a total of 39 patients from our original series. Twenty-eight of

these patients had received malaria in the period from 1927 to 1931. The remaining 11 patients were untreated. This undoubtedly means that during the 12-year period a considerable number who had not received malaria had fallen by the way and are included in this paper in the group of those who died at a State Hospital.

Finally we can summarize the cases dividing them into malaria and non-malaria groups, which gives us the following data:

	Malaria Cases	Non-Malaria Cases
Total Number	293	105
Discharges	163 (55.6%)	53 (50.5%)
Deaths	102 (34.9%)	32 (30.5%)
Still Hospital patients	28 (9.5%)	11 (10.5%)
Sent out of state for further care	00	9 (8.5%)

CONCLUSIONS

1. Three hundred ninety-eight cases of dementia paralytica were studied of which number 293 received malaria treatment during their hospital stay.

2. Ninety-one patients died at the Cleveland City Hospital. Thirty-four of the deaths were either directly or indirectly due to malaria. This amounts to a death rate of some 12 percent from the malaria itself.

3. Fifty-five percent of those who received malaria were eventually discharged, but 50 percent of the group who did not receive malaria were also eventually discharged.

4. The good remissions even with malaria were very few in number.

5. Of those committed to a State Hospital 39 were still there in August, 1939. Of this group, 28 out of 39 had received malaria.

6. It appears that a great number of those who had malaria became chronic hospital cases—with a physical but not a psychiatric remission. It is my impression from the above data and figures, that the malarial treatment has not proved to be as efficacious as it was assumed to be. It has increased the hospital stay of those who prior to the malarial treatment would have had a much shorter expectancy.

7. I do think, however, that even with its dangers and results as shown above, that it is well worth continuing for the results it does effect in some of the cases.

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Herpes Simplex of the Lips

The cause of herpes, or fever blisters, is unknown. It is thought to be of bacterial origin and a virus has been isolated which will pass through a special filter. The lesions are frequently seen after gastrointestinal disturbances, respiratory infections, colds, sunburns, toxic and febrile states and reflex irritation. The eruption is usually observed on the face, ears and genitals. The lesions are usually multiple, vesicular in type and on erythematous and edematous bases. The exudate from the vesicles is both auto and hetero inoculable. It was suggested at one time that herpetic lesions were a terminal neuritis. The large solitary lesion often seen on the lip is sharply localized and the most disturbing and disfiguring. The vesicle is usually well below the surface and is tender and painful. The walls of the lesion are thick and have slight tendency to spontaneous rupture and rarely suppurate. The pain and irritation is due to pressure within the vesicle.

The lesion may persist for many days until the tension is relieved by rupture and the escape of the fluid. If the lesion is untreated the vesicles after many days usually dry up and yellowish crusts are formed which are either removed with the fingers or licked off by the tongue. Many of the large single vesicles which occur on the lips, if carefully inspected with a good magnifying glass, will be found to have the pattern of a small wheel. The number of partitions may vary from four to eight. Recently I studied a lesion in my own lip and there were five segments.

The treatment which I have used on a number of patients, and on myself consists of multiple punctures with a sterile, fine hypodermic needle. When this simple procedure is followed the tension is immediately released, the itching and burning relieved and a scab will quickly form and the lesion will usually heal within a week. —Walter M. Brunet, M.D., Chicago, Ill.; *Virginia Medical Monthly*, Vol. 67, No. 1056; June, 1940.

Biliary Duct Stones

Postmortem statistics show the presence of duct stones in about one-fourth of the cases of disease of the biliary system. The incidence of recovered stones from the bile ducts is much less than that, except in a few clinics where explorations are done routinely in 50 per cent of cases. The percentage of recovery subtracted from 24 per cent (postmortem incidence indicates a failure in treatment.—Perry Vayo, M.D., and Leo. F. Simpson, M.D., Rochester, N. Y.; *N. Y. State Jr. of Med.*, Vol. 40, No. 10, May 15, 1940.

The Obstetric Pelvis

Is Manual Examination Adequate for the Scientific Conduct of Labor? Comments on Roentgen Rays and Manual Measurements

JOHN P. GARDINER, M.D.

IT seems that every obstetrician who has become engrossed in the study of the female pelvis has had to guard against losing his obstetric viewpoint and against accepting that of the osteologist, who studies the dry and fixed pelvis and skull of the child. Now, with the development of radiology, the obstetrician who interests himself in the roentgenological study of the female pelvis, must guard once again against losing his obstetric viewpoint and against accepting that of the radiologist. While the radiologist is observing the relation of the fetal head to the mother's pelvis at the same time that the obstetrician is, he is dealing with a static state (1) but the process of labor is continuous. The obstetrician observes the pelvis and the child's head in the physiologic state, the pelvis, capable in some cases of a degree of pelvic relaxation and the moldability of the child's head make a constantly changing relation to its environment.

The radiologists have put the techniques of pelvic measurement into a state of flux. The studies of the obstetric pelvis by the roentgen rays has been seriously taken up by Thoms, Caldwell and Moloy. They, after a study of their roentgenograms have been impressed with the various pelvic shapes as recorded on the roentgenographic film. Their reaction to the study of the roentgenographs has resulted in an attempt to remold the classification of obstetric pelvises.

Caldwell and Moloy—Phylogenic Classification

1. Gynecoid
2. Android
3. Anthropoid
4. Platypelloid

Thoms—Anatomic Classification

1. Dolichopellic or anthropoid type
2. Mesatipellic or round type
3. Brachypellic or oval type
4. Platypellic or flat type

(Note 1.—In order to appreciate one's attitude on first seeing the roentgenogram of the obstetric pelvis in which one is interested, it might be well to call attention to the personal equation. When one first sees a recent photograph of one's self, the mental reservation is more or less for or antagonistic to it. There is a little feeling of surprise; "Is it a true representation?" one may ponder. Yet, the remark may be made by others, "That is a characteristic expression at times." So, this same experience must be considered when one observes a roentgenogram; for, after all, the photograph and the roentgenograph are both only instantaneous photographic representations of an object and therefore static.)

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14-16, 1940.

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Michaelis and Litzmann—Obstetric Classification

1. Lowest limit
 10. c.m. C.V.* of normal
 - 9.5 c.m. C.V. in flat pelvis
 2. Relative contraction
 - 1° 8.4 c.m. C.V. to normal
 - 2° 7.4 c.m. C.V. to 8.4 c.m.
 - 3° 5.5 c.m. C.V. to 7.4 c.m. (2)
 3. Absolute contraction
 - 5.5 c.m. C.V. the lowest limit
- *Conjugata Vera.

Whether the phylogenic classification of Caldwell and Moloy is better than the obstetrical classification of Michaelis, usage will tell. It is difficult to see that this phylogenic conception aids in the interpretation of the manual measurements which the obstetrician must use as a basis for the conduct of labor. Thoms apparently recognizing the confusion of the phylogenic classification makes an effort to connect it with the anatomic classification. The roentgenologic work which has been and is being done on the obstetric pelvis is necessary and great credit is due those who are devoting the time to it.

A fear of disproportion always confronts the obstetrician. He can rest assured that the pelvis having the diameters shorter than the average can be thoroughly examined manually. It is not so much the small size of the pelvis that causes anxiety to the obstetrician but the relation of the size of the fetal head to the pelvic diameters. The majority of women who have small pelvises also have small children.

INLET DIAMETER

When examining the expectant mother the pelvis is divided into three parts, the inlet, the midpelvis and the outlet. At the beginning of

(Note 2.—The concensus of opinion makes 7 centimeters the lowest limit of the true conjugate diameter.)

labor the child usually lies above the bony entrance to the birth canal. The first problem is to determine whether the largest part of the fetus, the head, can pass through the inlet. In multiparae, it is infrequent to find the presenting part in the pelvis below the superior strait, irrespective of the size of the fetal head; but in many primiparae the fetal head is through the superior strait and may be well into the pelvic cavity. Great disproportions at labor are rarely found in the country or smaller communities where proper nutrition and outdoor life is much more easily attained. From rural communities reports have come attesting the fact that in a life's experience the physician has never had a maternal mortality in well over 2000 cases.

Some few women having small pelves with disproportion have as their background a poorly nourished childhood causing bony malformation; the malformation may be congenital or may be due to disease. Rickets as a cause seems to be decreasing due to proper feeding of babies. It is but natural that those of the populous cities who have most of the disproportion cases under their care should be the most insistent in pointing out the need of adequate pelvic measurements.

Ever since the days of Smellie, Baudelocque, Naegele and Michaelis the necessity of estimating the proportion between the passage and the passenger has been emphasized. Baudelocque, under the influence of Solayres, became so interested that he developed as many as 93 distinct pelvic measurements, which Madame La Chapelle, the world's greatest midwife of all time, and her equally famous daughter, Madame Doctor Boivin, recognized was excessive and recommended that 23 measurements were sufficient. So, we find ourselves in our time influenced by the same drive that influenced Baudelocque and his peers, studying this same problem. Today, we are leaning heavily upon the roentgenogram, a picture at which one can look, in which the pelvic image appears very definite; the contours of the superior strait or inlet are shown very graphically; it seems that here must be the solution of the pelvic measurements. The roentgenogram represents accurately a precise mechanical definition. However, in using the roentgen rays as a means of obtaining the pelvic measurements two problems are presented. The first is the fact that the roentgenogram represents one plane and the other, that the calculation or measurements of the pelvic diameters are mostly outside this plane. The roentgen rays starting from a point, spread equally in all directions and strike the plane which is horizontal only to the center stream of the rays, thus the rays radiating outward from the center are intercepted by both the object, in this case the superior strait and farther on by the photographic film. Therefore an allowance for the spreading rays must be made from the superior

strait to the film. This calculation (3) is made more difficult when it is realized that not every part of the circumference of the superior strait is in the same plane. The plane of the transverse diameter of the superior strait may be as much as 2 c.m. below the plane of the anteroposterior plane. Where there is this difference the calculation of the transverse diameter is complicated. Then, too, the anteroposterior diameter of the inlet (the one diameter by radiology which is agreed upon as of true calculation) may be confused, as there may be an exostosis from any location on the posterior surface of the symphysis pubes. If the exostosis is located far down on the symphysis pubes the disproportion is only in the diagonal conjugate diameter and the head may be able to pass, because the space is increased due to the beginning backward curve of the sacrum. Such an exostosis would then only complicate the estimation of the conjugate vera diameter. A stereoscopic roentgenogram would show this complication. To measure stereoscopically it must be pointed out that the roentgenograms are still in one plane and the allowance for the spread of the rays must be calculated. Mastering the technique and estimating the pelvic measurements from the roentgenogram or stereoroentgenogram requires some experience as Hodges and Dippel point out, mentioning the expense only in passing.

Fortunately for the baby and the mother, the diameters of the female pelvis are in many planes. It is impossible to take roentgenograms of every plane of the pelvis and calculate the diameters from each of these various roentgenograms. The patient may be sensitive to repeated roentgen ray exposures. The roentgenologist is rendering a great service to obstetrics in demonstrating the fetal location in fat, pendulous abdomens and in those abdomens with hydramnios, also in demonstrating the position of twins, the stage of fetal ossification, the degree of symphyseal separation and the condition of acephalus or hydrocephalus and other particularly bony malformations.

In cases of any question of disproportion found at the first consultation, a thorough study of the pelvis must be made. The important steps which must never be omitted are, a complete examination of the inlet, the midpelvis and the outlet. In apparent disproportion cases, a special examination should be made about ten days before the expected delivery. It must be again pointed out that all diameters, in which there is a narrowing, can be measured manually. If the promontory of the sacrum can be palpated the diagonal conjugate diameter definitely can be measured. The

(Note 3.—Thoms recommends a method of roentgenographic measurements which he has ingeniously devised. Caldwell and Moloy have proposed measuring the pelvis visually by means of a stereoscopic projection of a roentgenogram of the pelvis.)

promontory then should be explored with the examining finger, and also the posterior surface of the pubes for any exostosis or an excessive pubic transverse ridge. The height and thickness of the pubis is noted and the upper inside of the pubis and the iliopectineal line examined by sweeping the inside fingers upward as far as possible approaching the fingers of the outside hand placed in over the rim of the pelvis. Any irregularity may be noted. The iliosacral junction may be palpated. In this way a good working idea of the size of the superior strait is obtained. If the largest diameter of the head is still above the inlet and seems to overlap the pubic bones on descent, its size should be estimated and a roentgenogram examined for the degree of fetal head ossification. If the fontanels are open one realizes that the child's head is able to change its shape considerably by lengthening and widening in certain directions. This molding permits the head to work its way through many obstacles in its passage through the bony pelvis.

Another point gained by experience is that there is a certain degree of give in the pelvic ring in some women at term which permits the passage of a further unmoldable head into the superior strait and other diameters farther down. The possibility of increase in size at the superior strait was pointed out by Walcher; in some instances a distinct separation of the symphysis pubis can be demonstrated. But in other women there is apparently no joint separation or give to the pelvic ring. When there is a large, well ossified head which permits of no molding, experience will direct the method of delivery, whether to proceed in the usual way or to perform a section. The wise choice of method is only limited by the various procedures which the obstetrician has mastered. The well trained obstetrician of the future will consider a section on a parturient who might have been delivered via naturales as meddlesome midwifery. Section has a higher mortality rate which must not be belittled when deciding for a Cesarean. There is a particular stimulus from a well conducted difficult delivery through the birth canal.

MIDPELVIC DIAMETERS

Rarely does the midpelvis give trouble to the passage of the head; however when there is a disproportion the knowledge of the diameters is important. The obstetric diameters of the midpelvis are two in number, the anteroposterior diameter and the oblique diameter. The curve of the sacrum is readily determined by the distance the examining finger tip is from the subpubic ligament when inserted into the pelvic cavity. If the inserted finger-tip reaches 12 cm. at all points along the sacral curve from the subpubic ligament, the antero-posterior diameter is ample. The curve of the sacrum has been found to vary considerably. At times there is no curve, the

sacrum descending in a straight plane downward from the first sacral vertebra which, of course, does not permit the usual backward placement of the descending fetal head, and unless there is a compensatory widening of the anterior portion of the pelvis due to the accommodating bulging of the pubis and rami of the pubis and ischium, dystocia is the result. The normal position of the presenting part in the midpelvis is in the oblique diameter. The largest diameter of the child's head, the biparietal, passes through the ischial-ramic or left oblique diameter of the midpelvis, that is, the distance from the left ischial spine to the opposite junction of the descending pubic ramus and the ascending ischial ramus.

I like to represent the obstetric midpelvis as a trapezoid; one side formed by the ischial-ramic diameter; of the other two opposite sides, one is the anterior line, from the right ramic junction to the tip of the right ischial spine, the other, the posterior line, from the tip of the left ischial spine to the edge of the right fourth sacral vertebra; the side or end opposite the ischial-ramic diameter completes the trapezoid, being a line from the edge of the right fourth sacral vertebra to the right ischial spine. The smaller diameter of the head, the bitemporal, is in close relation to the smaller side of the trapezoid, the space between the ischial spine and the edge of the fourth sacral vertebra corresponding to the great sacro-sciatic notch. The diameter representing the width of the great sacro-sciatic notch is of obstetric interest only if the antero-posterior diameter of the midpelvis is insufficient. It is difficult for the roentgen rays to give simple data on the midpelvic diameters which is so easily obtained manually. After the presenting part passes through the ischial-ramic diameter it soon enters the antero-posterior diameter of the outlet rotating at the same time from the oblique to the antero-posterior position.

OUTLET DIAMETERS

The outlet diameters are two—the one the antero-posterior diameter extending from the subpubic ligament to the tip of the sacrum and the other the bituber diameter which if shorter than normal makes a pelvis of the type designated by Williams as the funnel-shape pelvis. The outlet from the lateral viewpoint can also be roughly represented as a right angle triangle. The right angle may be regarded as being at the tubers of the ischium. The ordinate of the right angle is the distance from the tubers to the subpubic ligament; the base, the distance from the tubers to the tip of the sacrum; the hypotenuse, the antero-posterior diameter of the outlet, the distance from the subpubic ligament to the tip of the sacrum. While the outlet diameters are usually spoken of together it must be remembered that the bituber diameter is the last diameter of the outlet, being at the right (really obtuse)

angle of the triangle. It is in some cases more than 5 c.m. below the hypotenuse, the antero-posterior diameter of the outlet. The two diameters of the outlet not being in the same plane will be always difficult of calculation from a roentgenogram. The manual measurements of the outlet are not difficult to obtain and can be obtained with accuracy. It is a usual experience to find the antero-posterior diameter of the outlet elongated when there is a shortening of the bituber diameter thus permitting the head to approach the narrowing with its greatest degree of molding, having met no interference in the antero-posterior diameter. Narrowness of the pubic arch preventing free insertion of the examining fingers should stimulate an interest in the pelvic measurements. If the pubic arch is narrow the presenting part of the child must descend well down the birth canal before it is delivered. If the arch is wide, the presenting part will not be forced to descend so far before it appears through the vulva under the subpubic ligament. Occasionally the antero-posterior diameter of the outlet is shortened by ankylosis or forward fixation of the coccyx. Infrequently is dystocia due to the bony outlet. If there is some delay in labor at this point it is often found to be due to the musculature of the outlet, or to be associated with a short or coiled cord, or due to a malpresentation.

It might be pointed out from a review of the recent literature that after the present enthusiasm for the roentgenogram has lessened and its real contribution to obstetrics has crystallized, manual pelvic measurements will probably be relied upon until another method is developed.

The obstetrician can still ordinarily rely for the conduct of labor on the information which he may obtain by the interpretation of the manual examination of the obstetric pelvis.

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A Correction

At the request of Dr. Hal E. Freeman, Cleveland, Ohio, author of "Cleveland City Hospital Observations on Sources of Infection in Syphilis", which appeared in the June issue of *The Journal*, we are glad to publish the paragraphs on page 618, from which several lines were omitted in the original manuscript as submitted to the Editor. The revised paragraphs, with corrections shown in italics, are as follows:

4. Children:

(a) There were in the series three little girls, whose ages vary from several months to seven years who were infected *by their mothers during routine childhood care.*

(b) *A younger brother and three younger sisters were infected, sexually, by a 14-year-old boy who had acquired his infection, homosexually, from an old man whose identity was never learned. Therefore, the man could not be included*

as a source of this boy for purposes of this study, but the brother and the three sisters could be included because their brother, with early secondary syphilis, was definitely considered to have been their source of infection.

Some Common Dietetic Errors

Eating too much sugar is a dietetic error which belongs to recent times. A few generations ago sugar, meaning cane sugar, which is the ordinary sugar of commerce, was scarce and expensive. It was mostly used to sweeten tea and coffee as a special luxury. Now this sugar is abundant and cheap, and has become a large element in the ordinary human diet, and one which is often eaten to excess. But the period of a few generations from the time when sugar was a small element in the human diet, to the present time when it has become a large element in that diet, was not sufficient to enable the human organism to adapt itself to the use of this new food in large amounts. And the fact that the human organism for long ages has been accustomed to use starch for its regular carbohydrate food, accentuates the reason for conservatism in the use of cane sugar.

Besides the foregoing argument against using cane sugar in large amount in the diet, there is the more direct argument, that, being a purely fuel food and one lacking in vitamins, its large use, by encroaching on the dietetic field may prevent to a considerable extent the use of other foods which would supply necessary vitamins. The excessive use of cane sugar can be a factor making for a deficiency diet, besides favoring the development of obesity and other disease conditions.

Incidentally, the use of sugar in combination with other foods can overwhelm the natural flavors which nature implanted in foods to make them agreeable; and by so doing it can interfere with natural dietetics. While this objection may not be of much importance in some cases, it may be so in others. The practice of putting sugar on cereals not only injures their natural flavors, appreciation of which is an important factor in insuring their sufficient use in diet, but it may interfere with digestion.

Here the question of desserts comes up. Cane sugar enters largely into the composition of most desserts; and desserts can be objectionable in the particular case, and even in general, as making for excessive use of cane sugar, as well as for an excess of fuel food; after having eaten a sufficient meal, the individual is tempted by the dessert to eat more.

Shakespeare had his fling at sugar when he twice used the simile, "sweet to the taste, but in digestion souring."—Edward E. Cornwell, M.D., Brooklyn, N. Y.; *Medical Record*, Vol. 151, No. 10, May 15, 1940.

Ocular Complications of Diabetes Mellitus

EDWARD R. THOMAS, M.D.

JOSLIN¹ has estimated in the United States today there are approximately 600,000 patients with diabetes and that approximately 2,000,000 people now living will develop the disease before they die. About one-fourth of the population have hereditary family histories.

The life span of the diabetic patient with modern treatment has been greatly prolonged so that the average age at death of the diabetic patient is 62.6 years.

The greatest cause of death in diabetic patients today is arteriosclerosis. Since more diabetic patients are living to the age when arteriosclerosis develops the incidence of complications of the eyes should be relatively increased.

A predisposing factor in the development of diabetes is heredity which should be carefully investigated in every patient. An examination of other members of the family should be advised. Obesity is another important predisposing factor. In adults it occurs in about two-thirds of the patients before diabetes develops.

Since Young² in England has succeeded in producing permanent diabetes mellitus in dogs by the injection of crude anterior pituitary extract, the endocrine glands, particularly the pituitary, are being investigated in further research studies in the development of diabetes in the human.

Diabetes is a metabolic disease capable of producing widespread pathological changes in the human body. This disease produces metabolic disturbances as: hyperglycemia, glycosuria, hypercholesteremia, the increased tendency to infection, arteriosclerotic complications, diabetic coma, skin conditions and a preponderance of complications in the eye. The problem of surgery and pregnancy in this disease requires careful attention by the physician.

I have carefully examined 100 diabetic patients because of ocular complaints. No attempt was made to compare the incidence of ocular complications among groups of diabetic and non-diabetic patients as this has previously been done in large series of patients, particularly by Waite and Beetham³ and also by Hanum.⁴ I have attempted to correlate the possible causative factors producing pathological changes in the eyes. The results are quite similar to many reports but appear generally higher in the percentage of exudative and hemorrhagic changes found in the fundi. Of this group of 100 patients, 81 were past 50 years of age. The youngest diabetic patient

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studied was 20 years of age. One-half of these patients had a blood pressure over 150 m.m. of mercury systolic and over 100 m.m. of mercury diastolic. Twenty-five patients revealed blood sugar determinations of over 200 mgs. percent at some time in the course of the disease. Thirty-nine patients had diabetes for a period of five years or longer. Twenty-six patients showed some lenticular changes in one or both eyes, of these 18 also had diabetic retinitis. Forty-eight patients showed evidence of hemorrhages, exudates or both in the fundi, of this group the average duration of the diabetes was ten and one-half years; 23 of this group revealed blood sugar determinations over 200 mgs. percent and 45 patients were past 50 years of age. One patient had a toxic amblyopia. In 43 patients the ocular complaint was produced by refractive errors, no other pathology of the eyes being found except early vascular sclerosis.

Young diabetic patients have a tendency to show higher blood sugar levels and require larger amounts of insulin for the control of the diabetes, but do not have the frequency of ocular complications seen in the aged. Diabetes usually, but not always, becomes milder with the increase of the age of the patient.

The duration of the disease, especially in the older patients plays one of the most important roles in the development of ocular complications.

A typical example of this is seen in a white male, 62 years of age, in whom sugar was discovered in the urine 18 years ago. This patient was first seen two years ago when he was complaining of failing vision and neuritis of his lower extremities. On admission his systolic blood pressure was 204 millimeters of mercury and his diastolic pressure was 110 millimeters of mercury. The blood sugar was 290 mgs. percent. The urine showed a slight trace of albumen and 2 percent sugar. There were definite myocardial changes, probably of coronary origin substantiated by an electrocardiographic tracing. An X-ray of the chest revealed scattered, calcified, atherosclerotic plaques in the thoracic aorta. His ocular examination on September 12, 1938, revealed the vision in the right eye to be 20/100 and in the left eye 20/200 with correction. The pupils showed slug-

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gish reaction to light. There were incipient, posterior, subcapsular, lens opacities. The fundi presented advanced, sclerotic, vascular changes; extensive deep and superficial hemorrhages with scattered individual exudates in the right fundus and conglomerate exudative deposits of a circinoid character in the left fundus. The tension was within normal limits when measured with the Schiötz tonometer.

The diabetes was controlled in the hospital but when discharged the patient disregarded his diet and took insulin according to his own judgment. He returned in December, 1938, complaining of further impairment of his vision. Examination at this time revealed the hemorrhages of the fundi to be more profuse. The iris of the left eye showed extensive engorgement of the vessels, the pupils were partially dilated and quite sluggish. The tension measured 26 m.m. with the Schiötz tonometer in the right eye and 30 m.m. in the left eye. The patient was treated with 2 percent pilocarpine—drops in each eye—five times daily. On December 18, 1938, the tension in the right eye was 30 m.m. and in the left eye 60 m.m. The engorgement of the vessels of the iris was greatly pronounced. The patient was admitted to the hospital for treatment. During the following week repeated hemorrhages in the iris occurred in the left eye. In one instance a spontaneous hemorrhage occurred during the observation of the eye. A diagnosis of rubiosis irides and secondary, hemorrhagic glaucoma was made. Miotics had very little effect on the ocular tension. Repeated paracenteses of the left eye were performed. The tension has still remained around 40 m.m. in the right eye and 70 m.m. in the left. It is surprising the patient has suffered no pain in his left eye at any time; degenerative changes are present in the cornea and infrequent hemorrhages in the iris appear. The left eye is totally blind but the patient refuses an enucleation.

Hypertension, although commonly seen in the older diabetic patients, may not be a constant finding. Generalized vascular sclerosis almost a constant factor found in the older, uncontrolled patients is most frequently detected in the medium and larger sized arteries, the smaller arterioles and capillaries do not always share in such changes. This may account for the non-existence of hypertension in all diabetic patients. It is known men are more subject to coronary thrombosis than women, but in diabetic patients Root and Sharkey⁵ found this condition just as frequently in women. The incidence of coronary thrombosis is about four times greater in the diabetic patient as compared to the non-diabetic patient. The sclerotic changes detected in the retinal vessels is used by some men as another helpful guide in determining the extent of the generalized sclerotic process in the patient.

Hyperglycemia does not in itself appear to have extensive influence in ocular complications except when present in higher levels over a long period of time. Many of the patients seen with retinal damage have a fairly low blood sugar level. Whether hyperglycemia exerts a toxic influence on individual peripheral nerves is not known but uncontrolled diabetes is not uncom-

monly associated with neuritis, ocular palsies and toxic amblyopia.

Regarding the so-called diabetic cataract, considerable doubt is placed on the true existence of this condition in the adult. Most of the lenticular opacities seen in my cases were of the senile type, localized in the posterior, sub-capsular regions appearing as peripheral spokes. The presence of diabetes appears to hasten the development of the opacities, often making them fulminating in character. The bilateral, fine, dot-like, posterior opacities found in juvenile diabetic patients is probably the only true type of diabetic cataract.

Transitory variations of the refractive error of diabetic patients is most common in those with uncontrolled diabetes. Diabetes should be suspected in any patient where the error of refraction changes within short periods of time. This is also true in patients showing a tendency for the astigmatic axis to shift in various meridians. All of my diabetic patients are warned that their vision may become temporarily blurred following the first attempts to bring the diabetes under control. Temporary myopia is quite frequent with the sudden drop in blood sugar. This refractive change is probably produced by the temporary swelling of the lens following the sudden changes in the osmotic pressure of the ocular fluids. Paresis of accommodation may also play some part.

The fundus changes in diabetic patients are usually typical. The earliest lesions in the fundi are small, deep, punctate hemorrhages and small glistening, waxy-white exudates in the posterior pole. The hemorrhages do not have any particular relationship to the vessels but are constantly found between the upper and lower temporal retinal branches. Flame-shaped hemorrhages may appear along larger vessels but are not frequent. The exudates usually isolated may become conglomerate and are located below the blood vessels which may be seen passing over their surfaces.

A good classification of fundus lesions suggested by Hanum⁴ as: A. Exudative type—subdivided into: 1. Individual exudative; 2. Those of circinoid character. B. Hemorrhagic type—subdivided into: 1. Individual punctate hemorrhages; 2. Those of proliferative character.

In the differential diagnosis the fact that edema of the retina or papilla is not seen in diabetic retinitis aids greatly in differentiating it from the other albuminuric retinitis conditions.

The primary treatment of any ocular complications in diabetes is the careful control of the disease itself. It is essential that a diabetic patient should be hospitalized and repeated determinations of the blood sugar should be made during this period of observation. The patient should be informed as to the character of the disease and told of his future outlook on life. The factors in

computing diet, the weighing of his food, instructions in the administration of insulin should be taught. This work for our patients is carried out by a nurse trained in diabetic care along with a dietitian, under the physician's supervision.

No patient should be given any refractive correction until the diabetes has been controlled for a period of at least three weeks. The effect of medication with respect to hemorrhagic and exudative lesions is variable in results. Iodine therapy either by mouth or intravenously is beneficial in those patients with hemorrhages into the vitreous. I have not felt that it has much absorptive action on the deep retinal hemorrhages. Recently uses of Vitamin "B" and "C" have been reported beneficial in the treatment of some patients with diabetic retinitis.

The success in ocular surgery depends upon the careful control of the diabetic state, both before and after the operation. A well selected and adequate carbohydrate diet is necessary. The judicious administration of fluids and insulin is imperative. Caution should be exercised in administering insulin to patients following ocular surgery since hypoglycemia may induce convulsions leading to the production of hemorrhages in the eyes or the rupture of the surgical incision. Frequent micro-blood sugar analyses are advisable following cataract extractions since it is frequently impossible to obtain urine specimens.

The oculist must realize that the most important factor in the treatment of any ocular complications from diabetes is the treatment of the diabetic state. He must thoroughly acquaint himself with the manifestations of the disease and must closely follow the progress of the patient during the general treatment of the condition.

SUMMARY

1. It may be assumed eye complications of diabetes may be more frequently seen with the increased life expectancy of the diabetic patient.

2. In 100 diabetic patients examined, ocular complications were relatively higher with regard to the duration of the disease and the increased age of the patient.

3. Arterio-sclerosis is almost a constant factor found in the older, uncontrolled diabetic patients.

4. The treatment of ocular complications in diabetes is primarily treatment of the disease state itself.

60 Wyoming St.

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Divertive Comment on Problems in Life Extension

The trend of our time is to eliminate elderly people from fixed employment and give them in exchange some sort of security sop. This is certainly all contrary to the scriptural adjuration that man shall eat his bread in the sweat of his brow. Leisure, whether acquired or enforced, is not as easily used as many imply. Henry Ford senses this and tries to get his industrialized employees back to the land, both for part-time employment and subsistence.

The matter of bringing peace and amity between urban industrialists and rural agriculturalists is not a medical problem. Nevertheless, our health standards, as I have shown, will not be maintained unless domestic peace and tranquility exist. Perhaps our highly industrialized cities must abandon unduly specialized and cloistered employment, even as our farms are abandoning the one-crop regime and becoming small industrialized food factories. There is a value as realistic as life itself in farm products. Wage earners, in budgeting the rewards of their employment, should think less in terms of vacillating currencies and more in terms of the essentials of food, housing, clothing and cultural development.

Rural freedom is too often sacrificed today for the noise and tinsel of urban apartment building crowding. A decisive dislocation apt to follow concerns tenement-born children. A teacher in a large grade school in Brooklyn found that only a few of her pupils had ever seen a cow!

Political reformers do not hesitate to impute to the Machine Age most of our social afflictions and to the medical profession the blame if some are poorly or illy fed. A statement comes from Washington that our annual income is about sixty billion dollars. This figures out about \$9 per week per person. With all the intangibles classed as national income, that doesn't leave much cash to divide. We seem, nevertheless, to have plenty of goods and food, and we know how to provide increasing amounts.

In summary, then, we come to this situation: Speedy, refrigerated transportation facilities and satisfactory canned, processed and preserved foodstuffs universally distributed, leave only two factors which limit the proper use of food: one is economic insufficiency and the other is disease and bad dietary habits.—E. L. Touhy, M.D., Duluth, Minn.; Wisc. Med. Jr., Vol. XXXIX, No. 5, May, 1940.

I used to wonder why people should be so fond of the company of their physician 'til I recollected that he is the only person with whom one dares to talk continually of oneself, without interruption, contradiction or censure.—Hannah More.

Diarrhea and Vomiting in Children*

MERLIN L. COOPER, M.D.

DIARRHEA and vomiting in children are common symptoms accompanying a number of diseases, some of which do not primarily involve the gastro-enteric tract. Diarrhea of the infectious type will be considered in detail. Vomiting will be treated briefly as a symptom of toxic disturbance and needs no special consideration, since treatment of the major disturbance results in abatement of the vomiting. The seriousness of diarrhea is apparent from the fact that 30 percent or more of all deaths in the first year of life, and the majority of deaths in the second year, are due to diseases of the intestinal tract. Since 1931 I have studied 769 hospitalized patients with acute diarrhea, of whom 185, or 24 per cent, have died.

CAUSE OF DIARRHEA

Predisposing Causes: Age is the most important factor predisposing to diarrhea. Sixty percent of the patients I have seen were under one year of age and a total of 82 percent under two years. Age is also an important factor in causing death. Our records show a 41 percent case fatality in the first six months of life, 23 percent in the second six months, 15 percent in the third and 12 percent in the fourth. Age is also related specifically to the incidence of dysentery. Our studies show that during the first six months of life 23 percent of the patients with diarrhea had dysentery, during the first 12 months 32 percent, and after the first year 75 percent had dysentery.

Season is likewise an important predisposing factor. The majority of our cases were seen in July, August, and September, with 4 percent occurring in June, 18 percent in July, 31 percent in August, 21 percent in September, and 15 percent in October. While the exact influence of season is not understood, we have noticed repeatedly during the peak of the diarrhea season that several days of increasing high temperature and high humidity are frequently accompanied by an increasing number of cases of diarrhea. A sudden drop in the high temperature and humidity is followed within a day by a noticeable decrease in such cases.

Dietary indiscretion may be a causative factor. We have seen two fatal cases of severe gastro-enteritis among older children who had visited amusement parks where they ate candy, sandwiches, ice cream, popcorn, etc., and also drank

various soft drinks. Both were extremely ill within twelve hours, with severe diarrhea and vomiting and developed marked dehydration and toxemia. In such cases both the unusual quantity of food and the indigestible mixture stimulated vomiting and diarrhea as methods of elimination.

Acute infections are frequently accompanied by diarrhea and vomiting as manifestations of the general toxic disturbances of the patient.

Emotional disturbances may have diarrhea and vomiting associated as symptoms of nervous interference with normal digestion and intestinal evacuation.

Various terminology has been used to designate the severe diarrhea of children. "Summer diarrhea" is a common term and denotes the seasonal occurrence; "gastro-enteritis" suggests an inflammatory reaction in the intestinal tract; "ileocolitis" denotes specific etiologic relationship such as "bacillary dysentery" in which dysentery bacilli (*Shigella paradysenteriae*) are found in the stools.

THE SPECIFIC CAUSATIVE FACTOR

Patients with severe acute diarrhea may be divided into at least two groups; one group designated "dysentery" in which dysentery bacilli are found in the stools, and another designated "acute gastro-enteritis", in which dysentery bacilli are not found. Symptomatically these two groups of patients are similar. The specific etiologic factor in the second group of patients may be any one of several different microorganisms, all of which have been found in the stools of patients with diarrhea under conditions which were thought to have etiologic significance. These microorganisms include streptococci, Morgan's bacillus, *Aerobacter aerogenes*, *Proteus*, *Streptococcus fecalis*, the *Salmonella* group, *Alcaligenes*, and possibly the various members of the colon group. We have shown that the last mentioned organisms produce a histamine-like toxic substance in cultures which, after boiling two hours, is fatal to animals.

In our studies we have demonstrated that various dysentery bacilli are present in the stools of 50 percent of the patients with acute diarrhea who are admitted to the hospital. The use of a proper medium, such as Sodium Desoxycholate Citrate, which inhibits the growth of *B. coli*, or MacConkey's, enabled us to detect dysentery bacilli in 97 percent of stools from dysentery patients the first day after onset, 95 percent on the second day, 94 percent on the third day and 88 percent on the seventh day. We were able to detect dysentery bacilli in 88 percent of stools

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*Dr. Cooper was selected to write an editorial summary on the above topic by a committee of ten leading Ohio pediatricians.

cultured during the first week after onset of symptoms, in 67 percent during the second week, 64 percent during the third week, and 44 percent after the third week. Some of these children continue to eliminate the dysentery bacilli in their stools for weeks and months after convalescence, and many patients still had positive stools when they returned home from the hospital. One convalescent patient was observed over a period of nine months, during which time dysentery bacilli were isolated repeatedly from his stools. Such convalescent carriers are obvious sources of this infection for other infants, children and adults. They act as carriers of the dysentery bacilli, which need only some means of transportation to a susceptible host to reproduce the infection. Unsanitary and unhygienic conditions, which permit contamination of food or drink, favor the entrance of these bacteria into the gastro-enteric tract of the susceptible new host.

SYMPTOMS OF ACUTE DIARRHEA AND DYSENTERY

The first symptoms are those of vomiting, diarrhea, anorexia, fever, and prostration. Vomiting may continue until the ejected material becomes only greenish liquid. The fever may reach 104°F or higher, especially in hot weather, if the patient does not receive sufficient fluids. The stools are generally numerous, six to thirty or more in 24 hours; and they are green, mostly liquid, and in about 40 percent of the patients mucus is present. Blood has been observed in the stools of 21 percent of our patients with dysentery and in 3 percent of the stools of patients whose stools did not contain the dysentery bacilli. Dehydration develops rapidly, as evidenced by sinking in of the eyes, shriveling of the face, drying of the skin, depression of the fontanelles, pallor, and loss of weight. These changes may develop with astonishing rapidity in a few hours. The pulse is weak and rapid; the respiration is often irregular or deep; the urine is almost suppressed; the abdomen is shrunken; the tongue coated and dry; the lips are frequently bright red. Nervous system involvement is indicated by irritability and restlessness; replaced early by apathy and stupor and later possibly by coma and convulsions. The blood picture is usually that of a leukocytosis, but it is surprising how frequently these patients have greatly reduced white blood cell counts.

Studies have shown that when toxic symptoms are present in these dehydrated infants there is a retention of the non-protein nitrogen constituents of the blood, a decrease in plasma volume and an acidosis; these changes being due to functional failure of the kidneys secondary to insufficient fluid.

ACIDOSIS

Acidosis develops because of a change in the acid-base balance of the body due generally to,

(1) a lowering of the base bicarbonate, sodium and potassium, and referred to as a lowered alkali reserve, (2) sometimes to an accumulation of lactic acid due to the impaired circulation and (3) to an accumulation of acid phosphate and other acids due to sluggish circulation through the kidneys. It rarely happens in acute gastro-enteritis that vomiting is sufficiently prolonged to result in alkalosis due to loss of hydrochloric acid. Symptoms cannot be relied upon in making a diagnosis of acidosis, since the most characteristic symptom, hyperpnea, occurs also in alkalosis. Alkalosis is a serious condition. We have seen four children admitted to the hospital with alkalosis due to excessive administration of alkali and all died. It may thus be dangerous to administer alkali to a sick infant or child unless the acid-base balance of the patient is determined by making an estimation of the carbon dioxide content of the blood. Acidosis, in the acutely sick infant or child, has a tendency to recur, so that it is advisable to check the blood carbon dioxide content if the patient's condition warrants it. Some patients require several corrections before the base bicarbonate becomes stabilized.

TREATMENT OF DIARRHEA

Prophylactic treatment consists in breast feeding of the infant during the first few months of life; temporary diminution of food intake and increase of fluid intake during periods of excessively high environmental temperature; appropriate treatment of any parenteral infection or toxic disturbance; screening against flies, refrigeration of perishable food; and the detection of carriers, and recognition of their danger to a community.

The treatment is largely symptomatic. There is no satisfactory specific serum therapy except for dysentery due to the *Shigella* dysenteria, and in infection due to this type the antiserum should always be used. In the United States this type of dysentery is seen infrequently. If it is felt that the diarrhea and vomiting are due to irritating material in the intestinal tract, and the patient is seen early, it is well to cleanse the intestines as soon as possible by colonic irrigation with salt or soda solution and possibly by the administration of a cathartic such as castor oil, milk of magnesia, or citrate of magnesia. If the patient is seen after diarrhea has already cleansed the intestines, catharsis is not indicated. If the diarrhea seems to be excessive and exhausting it may be advisable to attempt to check it by the administration of subcarbonate of bismuth or milk of bismuth. Intestinal antiseptics are of no value.

The dietary management is difficult. We have repeatedly seen relapses occur due to improper diet. It is important to remember that the intestines in these patients are irritated tubes and that anything placed in them may aggravate the

existing situation. Initial starvation for a period of hours or days is justifiable until abatement of acute symptoms occurs. During this time only fluids such as 5 percent glucose, orange juice, or physiologic solution of sodium chloride are given by mouth. Weak milk formulae may then be offered, such as lactic acid milk, skimmed milk or protein milk, and their concentration and quantity increased as convalescence and toleration permits. Pectin-agar and apple diet are reported on favorably by some pediatricians.

Maintaining adequate body fluid is essential. Administration of fluids by mouth is best if vomiting does not interfere and if sufficient fluid can be introduced in this way. Otherwise fluid should be administered subcutaneously or intravenously in the form of physiologic solution of sodium chloride alone, or in combination with equal parts of 10 percent glucose solution, or as 5 percent glucose solution alone. Administration by the continuous intravenous drip method, 15 to 20 drops per minute, is satisfactory for a short time. In order to avoid edema the normal fluid requirement of $2\frac{1}{2}$ ounces of fluid per pound daily during the first six months of life should be remembered, although, of course, dehydration may require that this figure be exceeded.

The treatment of acidosis has been considered earlier in this paper. I would only repeat here that it is important that this condition be recognized early and treated properly.

Frequent small blood transfusions seem to offer much assistance. They should be used supportively throughout the acute stage of the infection and are of more value at this time than when used later as an emergency measure.

In closing I would urge that the infant or young child with an acute diarrhea should be considered as critically ill, and that he requires early, careful and consistent observation and treatment in view of the high case fatality which attends this condition. Furthermore, prophylactic measures will modify the unnecessarily high incidence of both gastro-enteritis and dysentery.

Early in the Christian era phthisis was treated with the liver of a wolf in wine, a beverage made from the hoof of an ox, thousand-legged worms or green lizards. Another prescription compounded the ashes of a snake killed between two wagon tracks at the rise of the dog-star.—Miss. State Sana., Sept., 1939.

Deaths from tuberculosis can be reduced 50 per cent by health supervision of industrial workers in occupations predisposed to the disease, by detection of incipient cases, and by provision of adequate medical and institutional care in the early stages of the disease.—Handbook Coop. Health Assn., Utah W.P.A., 1939.

Significance of Minor Signs of Indigestion

Interrogating a group of colleagues as to the percentage of their patients complaining of indigestion elicited the information that the ratio varies from one to four to one to three. In a series of nearly 900 consecutive cases with the self-diagnosis of dyspepsia there were exactly 100 examples of gallbladder disease, 102 of trouble with the colon (chiefly spastic colitis), while 103 were expert air swallows—rapid eaters, who “burped”, sometimes with discretion, at other times not. Although 111 were diagnosed as chronic gastritis—some with the aid of the gastroscope—only twenty-four cases of carcinoma were disclosed. The balance apparently were functional or occasioned by some disturbance of physiology.

It is not my purpose to discuss in detail any single symptom and it would seem unnecessary to mention air swallowing. Nevertheless, this idiosyncrasy lies at the basis of at least 10 per cent of all disorders of the alimentary canal below the pharynx. The symptom is troublesome and sometimes it is as difficult to correct as peptic ulcer. Occasionally it may be responsible for painful abdominal distention, simulating volvulus.

We may classify it as a bad habit brought on by insufficient mastication possibly due to poor teeth, animated conversation during the meal, the bolting of food and overeating. We must not forget, however, it may be due to or be associated with a disturbance of some viscus, such as the gallbladder. Now and then it is a compensating maneuver employed in an effort to distend the gastric pouch as a means of allaying the pain of peptic ulcer. I recall a young man in his early thirties who acquired this trick. He had a well developed gastric lesion and would gulp air with complete relief. In his case the procedure was more effective than food. We have all, I am sure, observed the unconscious nervous swallower whose Adam's apple rises and falls with rapid periodicity. With every such movement some air finds its way down the gullet. Later it may pass into the bowel and give rise to “colicky” pains.—Irving S. Cutter, M.D., Chicago, Ill.; Rocky Mountain Med. Jr., Vol. 37, No. 5, May, 1940.

Intravenous injection of calcium chloride has been found in a majority of cases to terminate chills due to various causes. Relief of the chill appeared to have no effect on the subsequent elevation of the body temperature.—Paul B. Beeson, M.D., and Charles L. Hoagland, M.D., New York City; N. Y. State Jr. of Med., Vol. 40, No. 10, May 15, 1940.

Adequate Diets at Low Cost

MARTHA KOEHNE, B.A., M.A., Ph.D

IN the following discussion, special emphasis is placed on food selection and buying to provide an adequate diet for not over 30 cents per man equivalent per day.* There is comparison, however, with recommendations for families on a more liberal income, showing how adjustments are to be made. Such families may also use some of their extra food money for "out of season" fresh foods, choicer cuts of meat, and for refinements in food service. Such money should not be spent on more complicated menus—these should always be kept simple.

Prices quoted are based on current prices in a large independent cash and carry city market from May 15 to June 1, 1940. Amounts of food advised are based on recommendations of the Bureau of Home Economics, U. S. Department of Agriculture, as quoted in "Food and Life", the 1939 yearbook of the Department of Agriculture. This valuable and interesting book can be purchased from the Superintendent of Documents, Washington, D. C., for \$1.50.

In the following sections will be found guides for wise buying of food, information as to the unique value of these different groups of food and how to treat the food in the home to preserve its food value, appearance and flavor. At the end of each section will be found a statement of how much should be supplied per week to provide for good nutrition when money available for food is from 27 to 30 cents per man equivalent per day.

MILK

Fresh whole milk should be used as beverage milk for children, adults may drink skim or buttermilk. If the family is dependent upon public milk supply, properly pasteurized milk only should be purchased for use as beverage. Regular grade pasteurized milk costs 10 cents per quart or 6 cents per pint. Certified raw milk, pasteurized Grade A quality and other special milks cost 12 cents per quart or 7 cents per pint. Plain buttermilk, equivalent to skim milk in food value, may be purchased for 19 cents per gallon in most cities. If milk is delivered to the home, the bottles must be brought in promptly after delivery, especially in warm weather, the tops washed off and the milk refrigerated.

*The statement of cost per "man equivalent" means the cost of food for a man doing moderately light work.

Editor's Note: Because adequate nutrition for all is one of the problems underlying all attempts to better the health of the people, we have asked Martha Koehne, Ph.D., Nutritionist in the Bureau of Child Hygiene, State Department of Health, to undertake for us a study of the job of getting an adequate diet at a reasonably low cost. The study was undertaken and is published with the consent of R. H. Markwith, M.D., State Director of Health.

Evaporated milk is mixed with equal amounts of water to make the equivalent in terms of fresh whole milk. Unsweetened evaporated milk, in large cans, costs at the rate of 6.3 to 7.8 cents per quart of fresh whole milk equivalent. Ten of these cans are equal to 8¾ quarts of fresh milk, making one gallon cost approximately 31 to 39 cents. Small cans cost at the rate of 8.4 to 8.7 cents per quart of fresh whole milk. Twenty of the small cans make the equivalent of 7½ quarts—one gallon of fresh milk equivalent costing 42 to 44 cents. In spite of their higher cost, the small cans are preferable to buy for use in infant formulae, when the family has no refrigerator. Unsweetened evaporated milk is very satisfactory to use for cooking purposes and also for drinking, if the taste is not objectionable. It is the full equivalent of fresh whole milk in food value. Once a can has been opened, it must be kept in the refrigerator for the milk will otherwise spoil as readily as does fresh milk.

One ounce of plain yellow cheese, which is a cube measuring about 1¼ inches in each direction, costs 1.3 to 2.2 cents at rates of 21 to 35 cents per pound. This amount of cheese may be substituted for one-half pint of milk per person when desired. It may be eaten in sandwiches or used in cooked food.

Dry skim milk, now often called Dry Milk Solids, costs 10.5 cents per pound when bought in 25 pound cartons, 9.5 cents per pound in 50 pound lots, and 9 cents per pound when bought in 100 pound drums. There are approximately four cups per pound. One cup, or one-fourth pound, will make one quart of fluid skim milk equivalent at a cost of 2½ to 2¼ cents per quart or 10½ to 9 cents per gallon. The dry powder keeps indefinitely if kept tightly covered in cans to prevent absorption of moisture. It has all the food value of whole milk except for fat and vitamin A. The Bureau of Home Economics, U. S. Department of Agriculture, Washington, D. C., publishes a leaflet, "Dry Skim Milk" giving many recipes and directions for using powdered milk solids in cookery. This leaflet will be mailed free on request. Money saved by using this product in cookery in place of fresh whole milk, should be invested in extra green or yellow vegetables, cheese, liver, butter, etc. The use of these extra foods would more than make up for the absence of butterfat and vitamin A in the milk powder used in cookery.

Why is milk needed in the human diet? Its unique dietary value lies in its richness in calcium or lime, so necessary in building strong bones and teeth, in keeping the bones in good

condition and for the normal functioning of the soft tissues of the body. Unless the suggested amounts of milk are used, it is practically impossible to secure needed lime intake from other foods. Primitive peoples sometimes get their lime, as do many animals, from gnawing bones. If, for good and sufficient reason, it seems necessary for a physician to advise a patient not to use milk in any form, he should recommend a suitable lime salt to take regularly and make other modifications in the diet, such as extra meat and vegetables, to make up for the other

potatoes should be served at least once a week. Cooking potatoes without peeling—boiling with the skins on or baking—preserves their maximum food value. If peeled before cooking, sweet potatoes should be peeled one at a time, cut and dropped immediately in rapidly boiling water to prevent discoloration. It is never desirable to leave peeled and cut potatoes soaking in water for an hour or more before cooking.

At prices current the latter part of May, white potatoes cost $\frac{3}{4}$ to $1\frac{1}{2}$ cents per serving, sweet potatoes $1\frac{1}{2}$ cents per serving. Large

AMOUNTS OF FOOD NEEDED FOR ONE PERSON AT TWO FOOD EXPENDITURE LEVELS

	Low cost adequate diet. 27 to 30 cents per day per man equivalent*		Moderate cost adequate diet. 45 to 50 cents per day per man equivalent	
	Daily use	Weekly use	Daily use	Weekly use
Milk—to drink or use in cookery:				
Children under 2 years			$1\frac{1}{2}$ pints	
All other children			1 quart	
All children	$1\frac{1}{2}$ pints to 1 quart			
Each sedentary adult	$1\frac{1}{2}$ pints		$1\frac{1}{2}$ pints	
Expectant and nursing mothers	1 quart		1 quart	
All other adults	1 pint		1 pint	
Vegetables and Fruits:				
Potatoes and sweet potatoes	At least 4 to 6 Tbs. tomato juice or 2 Tbs. orange juice for each child under 4 years	10-11 meals		10-11 meals
Tomatoes and citrus fruit		4-5 meals		5-6 meals
Leafy green, other green or yellow vegetable or fruit		9-10 meals		10-11 meals
Other vegetables and fruits		9-10 meals	2-3 meals	
Eggs		4-5 eggs		5-6 eggs
Lean meat, fish, poultry		3-4 meals		7-8 meals
Dry mature beans or peas, nuts		2-3 meals		1-2 meals
Other foods:				
Cereals	1-2 meals		1 meal	
Breads	each meal		each meal	
Desserts	not over 1 meal		1-2 meals	

*At the average of 30 cents per day level this food would cost approximately $33\frac{1}{2}$ cents per day for men doing very hard work and for boys 16 to 19 years old; $27\frac{1}{2}$ cents per day for old men, women doing moderately hard work and for boys 8 to 12 years and girls 11 to 19 years old; 18 cents per day for each child under 2 years, boys and girls 2 to 7 years and girls 8 to 10 years. These are average figures, of course.

food constituents of his daily milk requirement.

How much milk should be provided for a family? Each child two to six years old and each expectant or nursing mother should have the equivalent of seven quarts per week; each adult doing sedentary work and each child under two years of age should have the equivalent of five quarts per week; children past six years in age should have five to seven quarts per week; each other adult should have three and one-half quarts per week.

VEGETABLES AND FRUITS

I. Potatoes: Sweet potatoes are high in vitamin A value because of their yellow color, white potatoes are of no value in this respect. Sweet

potatoes that are sound have less waste than do small potatoes.

How many potatoes should a family buy? Two to three pounds per person per week are needed by most members of a family. Half this amount would be enough for each child under two years old and double the above amount for each boy or girl 14 to 19 years old and for each man engaged in very hard work. These amounts permit potatoes to be served at 10-11 meals during the week.

II. Tomatoes and Citrus Fruit: These foods are grouped together because of their high value as sources of vitamin C. Canned products of this

type are just as valuable in this respect as are the fresh. These foods should be a necessary part of the diet of every member of the family. It takes, however, $2\frac{1}{2}$ times as much tomato or tomato juice as of orange or grapefruit or lemon, to give comparable amounts of vitamin C. Sometimes persons substitute pineapple or grape juice for the above foods. It takes three and one-half times as much pineapple juice as orange juice, while commercial grape juice is valueless as a source of vitamin C, yet four ounces cost $3\frac{1}{2}$ to 5½ cents!

Four ounces of fresh or canned orange, grapefruit or lemon or their canned juices go a long way toward supplying the ordinary adult daily need for vitamin C. The following shows a comparison of the costs of this amount of vitamin C in terms of these products:

Four ounces of grapefruit juice cost $1\frac{1}{4}$ to $1\frac{3}{4}$ cents (the lower figure when two 1-quart 14-ounce cans can be bought for 25 cents).

Four ounces of canned orange juice cost $1\frac{1}{2}$ to $2\frac{3}{4}$ cents (the lower figure when a 1-quart 14-ounce can may be purchased for 17 cents).

Ten ounces of canned tomato juice cost $2\frac{1}{2}$ to $8\frac{3}{4}$ cents (the lower figure when four 1-pint 8-ounce cans cost 25 cents, the higher figure when two 14-ounce cans cost 25 cents).

Thirteen ounces of canned pineapple juice cost 7 to 9 cents (the lower figure when a 1-quart 14-ounce can costs 25 cents. This is not a citrus fruit but is often used interchangeably).

Of course when fresh tomatoes are cheap enough to buy freely or are available in the garden at no cost, or when tomato juice is canned at home, this food provides a very cheap substitute for orange or grapefruit. At this season of the year, canned grapefruit juice is the cheapest source of vitamin C.

Juice left over after opening a can, should be promptly bottled, stoppered and placed in the refrigerator. Under such conditions, orange, grapefruit or tomato juice will retain almost full vitamin C value for 24 to 40 hours. Fresh tomatoes should be washed and refrigerated until ready to be used as salad, then peeled and served promptly. Fresh orange or grapefruit to be used similarly should be treated in much the same way.

How much food of this kind should be bought each week? At least $1\frac{1}{4}$ pounds will be needed for each member of the family, regardless of age, or approximately $1\frac{1}{4}$ pints ($2\frac{1}{2}$ cups) of grapefruit juice per person. Commercial "fruit" beverages, often distributed by dairies to homes and school lunch rooms in milk bottles, are very undependable sources of vitamin C as a rule and do not substitute for the fruit itself.

III. Leafy green and other green vegetables and all yellow vegetables and fruits including prunes: These foods are grouped together because of their high vitamin A value. They are also rich in iron and roughage. When possible to

eat them raw, they may also contribute much vitamin C value, vitamins of the B-complex group and other minerals, as well as variety in texture. B-complex vitamins, vitamin C and most minerals present dissolve readily in water. If too much water is used in cookery and the excess is discarded, instead of being bottled, stoppered and refrigerated and subsequently used in soups or gravies, or if the liquid on canned vegetables is discarded, much of these values in the product is lost. Cooking vegetables too long or cooking them in copper utensils also destroys vitamin C. The addition of baking soda to cooking water greatly increases the rate and extent of destruction of vitamin C and the B-complex vitamins, while the addition of salt to the water in which vegetables are to be cooked, or of sugar to the water in which fruits are cooked, helps prevent destruction of these vitamins. Also the addition of salt to the cooking water preserves the natural color of green vegetables as effectively as does the use of baking soda. If vegetables are cooked the shortest period of time needed to make them tender but not mushy; in the smallest possible amount of water, so that most of the cooking water is gone when the product is ready to serve; put on to cook in rapidly boiling salted water a handful at a time so that the water is near the boiling point constantly; and if they are served immediately when done, they will be most attractive looking, most palatable and have the highest possible nutritive value. Canned vegetables, if served hot, need only to be heated quickly; they are already cooked. Vitamin A is not affected by ordinary cooking processes.

The liberal use of vegetables and fruits of this group provides, in large part, the variety in color which helps so materially in making meals more attractive. Among the many foods of this group, the following are cheap enough now to be used in low cost diets; green garden or leaf lettuce, new carrots, home-grown asparagus, canned peaches, dried peaches or apricots or prunes. Home-grown peas and snap beans will soon be cheap enough to be part of such a diet.

How much of these types of food should be provided in order to supply enough for nine to ten family meals during the week? Each person over six years of age should have $3\frac{1}{2}$ to $4\frac{1}{4}$ pounds per week. Two and one-half pounds would be needed for each child two to six years old, while each child under two years would need $1\frac{1}{2}$ pounds.

IV. Other vegetables and fruits: When eaten raw, all of these products, as well as those of the preceding group, contribute vitamin C unless they have been peeled or chopped up and left standing exposed to air or soaking in water—in which case much of the vitamin C, and in the latter case B-complex vitamins and minerals as well, would be lost. These foods also contribute

variety in texture when eaten raw, because of their crispness, and when cooked provide some vitamins B and C and valuable minerals when the same precautions are used in their preparation as outlined in the discussion of green and yellow vegetables. Most of these foods are valuable sources of roughage. White vegetables such as cauliflower can be kept white in cookery if a little vinegar is added to the cooking water and if the vegetable is cooked for only a short time.

Among the foods in this group, those that are cheap enough now to be a regular part of a low-cost diet are canned pears, plums, peaches, berries; berries "in season"; dried apples and raisins; fresh cabbage, onions, turnips, rhubarb, radishes, beets.

How much of such foods should be purchased per week in order to serve at 9 to 10 meals during the week? All persons over 10 years of age need $2\frac{3}{4}$ to 4 pounds per person; children 6 to 10 years in age will need $1\frac{1}{4}$ pounds per child; children under 2 years old will need $\frac{3}{4}$ pound per child.

Rural families who have their own vegetable gardens have the advantage over families who have to buy all their fruits and vegetables. Garden products can be picked just before being cooked, eaten raw or canned. If used properly after picking, they will have superior flavor and nutritive value. City families should not buy vegetables and fruits that are badly wilted or bruised, regardless of seemingly cheap price. Waste is high and much of the vitamin C value would be gone. Many vegetables such as cabbage or roots and tubers, such as potatoes, beets, turnips, rutabagas, squash—can be stored successfully if only perfectly sound products are selected for storage and if there is a cool dark place of rather high humidity in which to store them, so they do not dry out.

EGGS

Eggs lend themselves to use in a wide variety of ways in cookery, besides being quickly and easily prepared for serving directly. It is suggested that four to five be used each week by each member of the family past $1\frac{1}{2}$ to 2 years old. During late fall and winter, it may not be possible for some low income families to purchase this amount. Children under six and pregnant and nursing mothers should have their full quota, however. One ounce of liver is a very efficient egg substitute. One ounce of lean meat or $1\frac{1}{2}$ tablespoons peanut butter, plus an extra pat and a half of butter during the day, would also substitute for egg when the price of eggs is high. When eggs are obtainable for 15 to 20 cents per dozen, more than four to five may be used, with resultant saving in meat bills.

Eggs should always be cooked slowly and at temperatures below the boiling point of water.

One should learn to say soft cooked or hard cooked eggs in place of soft boiled or hard boiled. Custards should be baked at low temperatures with the cups standing in hot water.

LEAN MEAT, FISH, POULTRY

The cost of such cuts of meat as leg of lamb, lamb chops, pork rib roast or chops, T-bone or sirloin steak, prime rib roast of beef, rump roast, and veal steak is prohibitive to low income families and they should not be purchased. Because of its very high fat content, hamburger at 14 to 15 cents per pound makes fewer servings per pound than that sold at 20 to 22 cents per pound. Cheap cuts of meat are likely to be tougher, but if correctly cooked, they become quite tender and palatable. They have just as high value as sources of good quality protein. Cheap cuts should be cooked very slowly at low temperatures. A little vinegar or tomato present in the cooking water or poured over the top helps to tenderize them. Bones should not be thrown away. They should be cracked, cooked slowly in water to make soup stock, or added to beans to improve their flavor. Dogs will eat what is left.

Many persons have been inclined, in the past, to scoff at pork. We have recently learned, however, that lean pork, fresh or smoked, is a rich source of vitamin B₁, while fat pork so freely used by many poor families, and lean beef, lamb or poultry are quite poor sources of this vitamin. The ordinary American home diet is very deficient in vitamin B₁. Better methods of using lean pork should be studied. It is usually cheaper than beef or lamb and is readily available on most farms.

Many low income families use amazing amounts of wieners and bologna. These are too highly spiced and too high in fat to be desirable meat substitutes for young children. They contain relatively low amounts of actual lean meat. They seem to be cheap, 15 to 25 cents per pound, but are not cheap sources of needed nourishment. Other forms of cold luncheon meats cost 25 to 37 cents per pound. Dried beef in bulk costs 55 cents per pound, while the same product costs 74 to 88 cents per pound when bought in glass jars. Canned deviled ham and similar sandwich spreads cost at rates of 53 to 92 cents per pound!

Forms of flesh food that should be used more freely are heart, liver and kidney. All are rich sources of vitamins of the B-complex group, especially vitamin B₁. Liver is also a very rich source of vitamin A and iron. All have excellent quality protein and are much cheaper sources of meat than are most cuts of lean muscle meat. Baby beef liver and calves' liver are, however, too expensive for low income families to purchase, but beef, pork and lamb liver are quite cheap to buy and are just as high in food value.

All these foods have little waste, compared with most cheap cuts of meat.

Poultry is very expensive to buy and should not be used, except on rare occasions, by the low income family unless they have their own chickens.

Fish that are caught and eaten directly are excellent meat substitutes for families with limited food budgets. Because of the large amount of waste, most fresh fish are expensive buys. Canned mackerel and herring are cheap, especially if purchased in large cans, but expensive in cans of less than 8 ounces. Canned pink salmon has just as high food value as red salmon and costs about half as much (14 to 22 cents per pound versus 25 to 42 cents per pound). Tuna fish costs at rates of 11 to 17 cents per 7-ounce can (25 to 39 cents per pound), or of 23 to 31 cents for 12 to 13-ounce cans (30 to 38 cents per pound). Tuna fish usually has less waste present in the can than does either pink or red salmon.

How much meat, fish or poultry should a family provide per week in order to serve at three to four meals during the week? Most members of the family will require $1\frac{1}{2}$ to 2 pounds each; boys 16 to 19 years old and men engaged in very hard work will each need $2\frac{3}{4}$ to 3 pounds. Children from six to ten years old will each need $1\frac{1}{4}$ pounds, while those under six years will only need $\frac{1}{4}$ to $\frac{1}{2}$ pound per week. These amounts would also make small servings at six to seven meals per week. The above amounts include reasonable amounts of bone and waste.

DRY, MATURE BEANS AND PEAS, NUTS

Foods of this group make very satisfactory meat substitutes, provided sufficient amounts of milk or cheese or meat are used regularly. Beans and peas are very cheap and should occupy a more conspicuous place in low income diets than in the diets of persons who can afford to buy more meat and eggs. They are good sources of energy and are filling, besides containing considerable iron and other minerals, vitamin B₁ and roughage. They should be soaked over night and cooked slowly until tender in the water in which they have been soaking. Soda must not be added to the cooking water for it will destroy vitamin B₁ that is normally present. If it is desired to add pork to improve flavor, lean pork is much to be preferred to fat pork so commonly used. Beans in five pound bags cost just about half as much $3\frac{1}{2}$ to $3\frac{3}{4}$ cents per pound) as those bought in one to two pound bags ($7\frac{1}{2}$ to 9 cents per pound). Canned baked beans, with pork or tomato sauce, cost at rates of 5 to 11 cents per pound (three to four servings), while one pound of dry beans at $3\frac{1}{2}$ cents per pound will make eight to twelve servings—a considerable saving in cost!

Walnuts, pecans, brazil nuts and almonds, in the shell, can be bought for 17 to 23 cents per pound (2 to $2\frac{1}{2}$ cents per serving). Spanish peanuts cost 18 cents per pound shelled or slightly over 1 cent per serving. These small peanuts are especially rich sources of vitamin B₁, with a high concentration of this vitamin in the tender red skin. Large "red skin" peanuts cost 29 cents per pound shelled but with skins on, and 35 cents per pound blanched. These prices are equivalent to 1.8 to 2.2 cents per serving. Nuts should not be given to young children who are not trained to chew such food thoroughly, neither should they be given to children or adults whose teeth are in such condition as to make thorough chewing impossible. In such cases peanut butter may be safely given. Low income families should use peanuts and peanut butter more liberally and fortunately most children like peanut butter. If persons object to its consistency, this may be improved by mixing with equal proportions of boiled salad dressing, mayonnaise or butter, apple butter, honey or other similar materials. Peanut butter usually costs from 17 to 30 cents per pound, depending upon the size of the jar and the brand. It is usually more economical to buy in large jars or in bulk if considerable amounts are used regularly. Costs per serving vary from $\frac{1}{2}$ cent to $1\frac{1}{2}$ cents, depending on size of serving and original cost per pound.

How much of these foods should be provided in order to serve at about three meals during the week? About one-fourth pound will be needed for each person over six years of age, half this amount for each child two to six years old, and about three-eighth or more pounds for each man doing hard work.

BREADS, CEREALS, CEREAL PRODUCTS

Families with little money to spend on food usually consume very large quantities of bread, cereals, rice, macaroni, etc., because they are our cheapest foods. Modern milling machinery has greatly reduced the nutritive value of our staple cereal foods because it removes the germ and outer coating which contain practically all the vitamin B₁, iron and roughage originally present. Many families falsely believe that the value of bread and rolls is proportional to their degree of whiteness. Breakfast cereals that represent all of the grain of oats, wheat, as well as brown rice and breads, rolls and crackers made in whole or part from whole wheat or rye flour or unbolted corn meals are far richer in nutritive value than corresponding products made from white flour or other refined cereal or meal. Most ready-to-eat breakfast cereals are undependable as sources of vitamin B₁, unless the pure vitamin is sprayed on after manufacture. Either they are made from highly refined grain or the high tem-

perature to which they are exposed in manufacture destroys most of this factor.

Whole wheat, cracked wheat, graham or rye bread costs 10 cents per pound while white bread can usually be bought for 8 cents per pound. The extra two cents cannot be spent more wisely, however, as a contribution to good nutrition. Stale bread may often be purchased at marked reductions in price. Inquire as to this possibility! Some bakers are now selling loaves half of the slices of which are white and half whole wheat bread. This is a good buy in homes where members of the family are just beginning to eat dark bread. Once a person has become accustomed to eating dark bread, he usually henceforth prefers it to white bread.

Ready-to-eat breakfast cereals made from refined cereal cost 8.6 to 9.4 cents per pound in cartons containing 12 to 15 ounces, and 23 to 40 cents per pound in packages containing four ounces or less. Size of package is no criterion as to net weight of contents in products such as these! Maybe you are buying air! Read the label to find out net weight of contents. Those containing added vitamin B₁, again read the label, cost 18 to 24 cents per pound in five to eleven-ounce packages. Others made from whole grains or containing bran mixtures, but not dependable sources of vitamin B₁ for reasons given above, cost 10.6 to 17.3 cents per pound in 12 to 15-ounce packages or 16.7 to 33.4 cents per pound in four to eight-ounce cartons.

Raw cereals, on the other hand, are much cheaper. Many are pre-cooked so require only three to twenty minutes cooking in the home. Refined cereals cost anywhere from 5 cents per pound for white rice in two-pound cellophane packages to 20 cents per pound for minute tapioca in a 21 to 30-ounce package. Some breakfast cereals are now being marketed with vitamin B₁, iron and other minerals added. One such brand costs at the rate of 14.1 to 16 cents per pound, depending upon the size of the carton. Macaroni and spaghetti cost 6 to 13 cents per pound in nine to sixteen-ounce packages and 13 to 18 cents per pound in less than eight-ounce packages. Canned cooked macaroni preparations with cheese or tomato, etc., cost 8½ cents per pound to 17 cents per pound in cans containing approximately 16 ounces. One such can will make only about four servings. It is, therefore, much cheaper to cook macaroni in the home, for one pound will, when cooked, make 14 to 16 servings. Noodles cost 12½ to 19 cents per pound.

Oats is the cheapest raw whole grain breakfast cereal, costing 4.2 to 5½ cents per pound in packages weighing two or more pounds. Whole wheat flour or cereal or whole grain meals in general do not keep well. Weevils can live in them but they cannot live in white flour! In the

summer especially they should be purchased in small lots to prevent waste. It is always more economical to buy ordinary flour in 24½-pound bags, rather than in 5 to 10-pound bags. Rural families may take their own wheat to the mill and have cracked wheat or whole wheat flour made for their own home use.

At least half of the bread and half of the cereal food used should regularly be of whole grain varieties—more is desirable in families on very low income. Unless this is done, it is very difficult indeed for families to secure enough vitamin B₁, which is so necessary for good health and vitality.

How much bread and cereal food should be used each week in a family, in order that bread may be served each meal and cereal served at one or two meals each day, in low income homes? Most members of such families will consume 2½ to 4 pounds per week. Children from two to six years old will need 1½ to 2 pounds each, while those under two years will need one pound each. Boys over 14 years and men engaged in very hard work will need, however, from 4½ to 8 pounds each! The recommendations in the preceding paragraph should be kept in mind in selection of such foods to buy.

SWEETS

Beet sugar in 25-pound bags costs \$1.19 while the same amount of cane sugar costs \$1.25 to \$1.27. The two sugars are identical and can be used interchangeably, even for jelly-making, in spite of common prejudice. Brown sugar, light or dark, costs 5¼ to 7½ cents per pound in four or two-pound bags, respectively. Confectioner's sugar costs 6½ cents per pound while cube sugar costs 6½ to 10 cents per pound.

Karo and similar syrups cost 6 to 9.3 cents per pound, depending upon size of container and brand. Those syrups which contain 15 to 20 per cent maple syrup cost 11½ to 24 cents per pound or per pint, while pure maple syrup costs 34½ to 40 cents for the same amount. Honey, strained, costs 11 to 16 cents per pound, the lower price for that sold in five-pound tins.

New Orleans molasses and sorghum are unique in food value in that they contain surprising amounts of lime and iron, this being especially true of sorghum. Low income families would be using excellent judgment if they used sorghum as table syrup and either sorghum or New Orleans molasses for cooking syrup. New Orleans molasses can be bought for 7½ to 16 cents per pound while sorghum, in ten-pound tins, costs 9½ cents per pound.

Apple butter costs 7 to 15½ cents per pound when bought in jars holding over one pound. Jams, jellies and marmalades cost 9½ to 14½ cents per pound in this size jar, but 28 to 32 cents per pound in jars holding eight ounces or

less. They are all much cheaper when made at home when fruit cost is low.

Cookies cost from 23 to 40 cents per pound in cartons holding one pound or less. They can be made at home at much lower cost. Plain oatmeal cookies containing raisins or dates are generally liked as well as fancy cookies. They cost very little, either in time or money, to make and really contribute something to good nourishment.

Low income families should not permit the purchase of candy. Cheap candies often contain undesirable fillers or for other reasons are not as wholesome as they should be. They often are left exposed to promiscuous handling and to coughs and sneezes of patrons of the store. Again, the use of highly concentrated sweets is a very important factor in the wide prevalence of tooth decay among both children and adults.

Most "soft drinks" cost approximately 4½ cents per pint or 5 cents for individual bottles. They contribute nothing to nutrition except a little potential energy (sugar) and flavor and are, therefore, very unwise buys for persons on limited budgets or for their children.

How much sugar or other sweets should be used in homes each week? Not over one-half to one pound per person past ten years of age is needed. Slightly over this amount may be used for each boy 16 to 19 years old and each man doing very hard work, or moderately hard work.

Desserts: Low income families should attempt to serve a simple dessert at one meal per day, especially if the family adopts the suggestion previously given to supply no candy. In simple desserts made largely of fruit or milk and eggs, sugar present is diluted considerably compared with candy or rich cake icings—it being used chiefly as flavor. Pure gelatin costs at rates that make enough to prepare one pint of jelly (one envelop) cost about 5 cents. Approximately this same amount of jelly can be made with some of the many commercial jello or jello pudding products at the same cost. However these latter preparations contain all the sugar needed as well as fruit flavor, that have to be provided extra when using pure gelatin. Some of these preparations even cost as little as 3½ cents per package, or per pint of resultant product. The cost of desserts is covered in other foods purchased, inasmuch as desserts are composed of one or more of the following foods already discussed: fruit, milk, eggs, sugar, flour, fat. Low income families should not buy ready-made desserts but should make them at home to save money.

FATS

Butter costs 29 to 34 cents per pound, the higher price for those brands put up in quarter-pound sticks. Butter is valuable not only for its very high energy value (equally true of all fats)

but also for its attractive flavor and for its vitamin A content. Butter should be kept covered in a dark cold place to preserve the vitamin A present. When present in fats, vitamin A is quickly destroyed on exposure to air and light and warmth.

There are two main types of oleomargarines or butter substitutes being sold today. Some manufacturers are adding to their product a plant pigment known as carotene which is later transformed by liver cells into vitamin A. This is the same pigment that is normally present in green and yellow fruits and vegetables and which makes them such valuable sources of vitamin A. Carotene is added to certain oleomargarines in such an amount as to make the product equivalent to approximately 7500 international units of vitamin A. Read the labels on the cartons, they will give you this information in case carotene has been added. Such oleos sell for 19 cents per pound. Other oleomargarines are valuable, however, only as a concentrated source of energy, as is true of pure sugars. Ordinary oleos cost from 9½ to 18 cents per pound.

Pure lard can be bought for 8½ to 9 cents or even less per pound, while popular lard substitutes cost from 12½ cents per pound in four-pound tins to 17 cents per pound in one-pound lots. Lard is as easily digested as are these substitutes and can be used as successfully in cookery.

Pure olive oil, even if of Italian origin, should not be purchased by poor families, for its nutritive value is the same in every respect as that of corn, cottonseed or peanut oil being sold under various trade names for salad dressing and cooking purposes. Olive oil costs two and one-half to four times as much as do these cheaper oils. Flavor "comes high" when meager food money is so invested!

Ready-made salad dressings (blended and mayonnaise types) cost 35 to 48 cents per pound in jars holding less than eight ounces but 12½ to 22½ cents per pound in jars holding a quart or more. Similar advantage is gained in buying French dressing in pint size jars or bottles at least. Boiled salad dressing can be made at low cost at home and is usually better to use on salads for children than is rich mayonnaise. Both French and mayonnaise dressings can be made at home at lower cost than when bought ready-made.

How much fat food should be supplied in the home each week? Enough butter should be supplied so that each person may have an average of at least six ounces (¾ pound) during the week. Other fats should be used in amounts of six to nine ounces (¾ to 1½ pound) for each member of the family past 10 years of age. Children under 10 years and over six need only about one ounce (two tablespoons) per week per

child, while those under six years need no special consideration in this respect, for they should never be given foods that are fried or greasy or otherwise overly rich in fat. The butter they get and the fat naturally found in peanut butter, meat, etc., will give them adequate amounts.

MISCELLANEOUS FOOD MATERIALS

Coffee and Tea: Growing children should not be permitted to drink tea or coffee. They have no food value whatever, except for sugar or cream or lemon that may be added. Vacuum pack coffees cost 19 to 35 cents per pound, while those in double moisture-proof bags cost 14 to 23 cents per pound. Coffees canned but not vacuum packed are 21 to 33 cents per pound. Two well-known brands of coffee with its caffeine removed sell for 29 cents per pound. A coffee substitute made from cereal, costs 16 cents per pound, but the completely soluble costs 78 to 92 cents per pound in eight and four-ounce cans, respectively. A well-known soluble coffee powder costs about \$5.00 per pound. It is sold only in cans holding four ounces or less.

Tea usually sells in cans or packages holding eight ounces or less and at rates varying from 44 to 92 cents per pound (four ounces for 11 up to 23 cents). One much advertised brand sells for 66 to 68 cents per pound in four to eight-ounce tins, but when bought in individual tea bags costs \$3.75 to \$5.25 a pound in cans holding under two ounces or \$1.58 per pound for eight ounces or 100 bags.

Cocoa: Cheaper cocoas are brown in color and sell at rates of 7½ cents per pound in two-pound cans to 18 cents per pound in half-pound cans. Red cocoas are more expensive but have a much richer flavor and "go much farther" than do the cheaper brown ones. One well-known brand sells for 47 cents for one-half pound or 87 cents per pound.

Vinegar in bulk, customers supplying the container, sells for 19 cents per gallon. If bought in bottles, it costs from 4 to 10 cents per pint. Ready-made pickles cost at rates varying from 5½ to 11½ cents per pound in two quart jars, to from 8½ to 19½ cents per pound in jars holding a pint or a quart. Pickles have low nutritive value but do contribute desired variety in flavor to certain meals. They can be made at home at much lower cost.

Adequate education of the individual, the community and the nation, is the keystone of a sound program to rid the country of tuberculosis. Education is the vaccine, immunizing agency and greatest prophylactic procedure against the disease.—Kendall Emerson, M.D.

A slight ailment often promotes longevity.—O. W. Holmes.

An Adequate Dietary in Later Life

Present day life extension is not due entirely to preventing disease or even to limiting of wars. Improved standards of living have played a part. A book emphasizing this fact has recently been published, "Hunger and History" by Prentice. This challenging title was chosen by none other than the son-in-law of the late John D. Rockefeller. He has conducted an experimental farm at Mount Hope, near Williamstown, Massachusetts. His experiments have been designed to increase the productivity of the soil and of his live stock. Through breeding and proper—not increased—feeding, his hens have increased their annual productivity from 160 to 220 eggs per bird and the milk output of his cows has been increased from 8,000 to 12,000 pounds per cow.

Prentice has sought out evidence on how people lived in the Middle Ages, and evidence on the rigors faced by Stone Age man. His historical researches show that in England, between 1201 and 1300, there was an average of seven famines per century; that, due to faulty harnessing, three or more oxen were required to pull a small plow; that ancient "feasts" would make a cheap cafeteria look like a gourmet's paradise. He mentions a recipe for bread including ground bark, acorns and sawdust, and a suggestion that newborn kittens were good substitutes for crab. He points out that it was only with the advent of the Industrial Revolution (presently so much condemned) that man, with the aid of lower animals, for the first time in 23 centuries had food enough to eat, and that this status was attained because the people had freedom. Freedom meant food. Grimly one sees dramatized in the contemporary world the destruction of food. "Guns before butter."

In connection with the problem of nutrition, present trends in soil conservation and animal husbandry should interest physicians. Wilson has collected some interesting facts and figures on this subject. I quote a few:

"In the United States . . . we have about twice as many people as cattle; . . . three times as many people as swine; ten times as many people as horses and perhaps six times as many people as dogs . . . For the past ten years income from animals and fowls has averaged about one-half the total farm income of the United States. Last year (1938) animal and poultry income to American farms was almost five billion dollars, or about 55 per cent of the entire agricultural income . . . In Wisconsin, five out of every six farm dollars are now animal dollars."

Wilson estimates that in 25 years we may see three-fourths of all American farm income taken from animals and fowls. We may ask, "Why?" Largely because of failing soils and the fertility and erosion problem. Tilling the land to grasses, legumes, etc., "sews the soil in place."—E. L. Touhy, M.D., Duluth, Minn.; Wisc. Med. Jr., Vol. XXXIX, No. 5, May, 1940.

Dog Bites; Case Record Presenting Clinical Problems

HARRY L. REINHART, M.D.

IN proportion to the number of cases of rabies which actually occur in humans each year, with particular reference to Ohio, no disease incites the public to as great a frenzy or commands more widespread notoriety. Such hysteria is not justified on the basis of inadequacy of methods of prevention, high human incidence of the disease even following dog bites, or the lack of efficient modes of treatment of dog bites for prevention of rabies. Perhaps the fear of the disease is engendered by the aura of fatality and gruesome symptomatology of the disease in man, and its actual rarity engenders a state of unfamiliarity both among laymen and physicians, which permits full play of the imagination and may lead us astray from a sane analysis of facts.

Although rabies is popularly considered a disease of "Dog Days", it may occur in dogs, rabbits, rats and other animals at any time of the year. Several cases of rabid dogs have been reported in various sections of Ohio this spring. The hysteria attending such reports seems to be in direct proportion to the intelligence of the community. The following case is a fairly classical example. A stray dog wandered into a region where a large group of children were playing ball and mingled with the children and several local dogs. The stray dog had several "fits" during this time. The police caught the suspicious dog and took him to a veterinarian who promptly diagnosed the dog as rabid, chloroformed the dog and cut off his head and sent it to the Public Health Laboratories where the diagnosis of rabies was confirmed by examination of the brain. Following the diagnosis of rabies there was a grand clamor for antirabic vaccination of all the children who were in the vicinity of the rabid dog. But many of the parents could not determine whether their children were in the vicinity of the dog, or had played with the dog. As the body of the dog had been destroyed, identification by parents or children of the rabid dog was impossible, there being several other dogs present at the time. No child was bitten or scratched by the rabid dog and definite knowledge as to the intimacy of the contacts between children and the rabid dog was

lacking. Therefore, antirabic vaccination of presumably all children who had even seen the dog was considered the safest (?) procedure. None of the children developed rabies, and there were no post-vaccinal paralytic accidents. About the same time in another city in Ohio a somewhat similar incident occurred and the death of one child receiving the antirabic vaccination was attributed to the vaccination. The newspaper account stated that this child had not been bitten by a rabid dog.

Dr. Hudson—

When a rabid or a supposedly rabid dog is loose in a community and individuals have been exposed to attack, the physician is confronted with the serious question of whether his advice is to be, "be vaccinated" or, "don't be vaccinated". Fortunately, a middle ground is available in cases short of an actual bite, and when the public hysteria has a chance to subside; then the advice can be, "let's wait a day or two to see". The public and public officials not qualified to give advice on this matter are inclined, unfortunately, to take a positive stand and to advise immediate vaccination. The drama of the situation and the knowledge of the public that there is on hand a vaccine have too often led to a blanket order, "be vaccinated". The decision, however, is not to be made by a layman because of his lack of acquaintance with the facts. It is the responsibility of the well informed and experienced physician to make the decision and to see that his advice is carried out.

If rabies vaccine were inexpensive, painless, completely effective and without undesirable effects (physical and psychological), then there would be no question of what course to pursue. Unfortunately, such is not the case. The physician who knows the facts and recognizes the factors discussed below will be the more intelligent in advising his clientele.

When a bite of an animal immediately recognized by qualified persons to be rabid has occurred, when the dog is caught and later is accurately diagnosed as rabid (which is not always easily done), and when the bite is by an animal that is pathologically positive (Negri bodies in the brain), then the duty of a physician is to treat the patient at once; first, by cauterization with fuming nitric acid, and second, by antirabies vaccine.

The difficulty comes, however, when the dog

This is the fifty-first of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conferences at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

escapes, when the clinical diagnosis of a confined dog is uncertain, when the Negri bodies in a clinically positive dog are not found, and most important when there is some degree of exposure short of an actual bite. These are the conditions under which a decision is most difficult, and the course to follow depends on the recognition of a number of factors.

First, Negri bodies are not found by the usual methods in all cases of canine rabies. Something like 96 per cent of brains of rabid dogs show Negri bodies. Where Negri bodies are not found, the clinical diagnosis is most important and, if positive, must be made by the exclusion of confusing conditions, as poisoning and central nervous symptoms of canine distemper.

Second, if the clinical diagnosis of a dog is uncertain, it should be held under close observation for two weeks or so until the symptoms have had an opportunity to declare themselves or an alternative diagnosis can be made. A dog can erroneously be accused of being rabid, when in reality it may have another disease of similar symptomatology, may be naturally ill-tempered, or, what is too often overlooked, it may be teased into self-defense by a playful or ill-bred child. The rabies virus is in the saliva of a dog as early as five days before the onset of symptoms, but a wider margin for the diagnosis of rabies or some other condition may be allowed.

Third, if the dog has escaped or if a wild animal has bitten the person and fled, then the physician must base his decision on the best evidence he can gather and make a thorough effort through responsible authority to find and confine the animal. Too often, the evidence is blasted by a well-aimed but ill-timed charge from a shotgun into the dog's brain.

Fourth, when the exposure to a dog suspected of being rabid is short of a frank bite, the physician should take the **degree of exposure** into account.

Vaccination is indicated if the relation between the dog and the person is intimate and consists of saliva actually being placed on the skin bitten or scratched at the same time. Saliva on an eczematous skin surface might be considered an intimate exposure. The passage of the dog through the playground, its jumping on the children with its feet without biting, mere touching of the dog's back, and saliva being on the palm or elsewhere on unbroken skin do not seem to constitute exposures justifying vaccination. The presence of hangnails or scratches gotten in play after the smearing of rabid saliva on the skin should be considered by the physician as a degree of exposure, the severity of which should govern the decision. Soap and water might well be applied under any circumstances; they are good detergents for dirt as well as rabies virus.

The point is that no blanket order of "be vaccinated" is justified. The circumstances and factors of exposure should be individually considered by an intelligent physician.

Let us now look at some data that have a further bearing on the questions of when and whether to vaccinate.

The percentage mortality of persons vaccinated after exposure is about 0.30, and if vaccination is delayed more than 14 days mortality is 0.38 per cent. Rabies occurs more frequently after deep bites and bites of bare skin, despite vaccination. Head wounds have a mortality, after vaccination, of 2.22 per cent; arm wounds, 0.26 per cent; bites on the trunk, 0.11 per cent; and on the leg, 0.18 per cent. (Figures from the Quarterly Bulletin, League of Nations, 1932 to 1937). It is difficult to say how often rabies would occur in exposed persons if vaccination were not practiced; estimates vary from 5 to 40 per cent, important factors being depth of bite, degree of laceration, site of bite, and interposition of clothing. Denison and Dowling (*Jour. A.M.A.*, 1939, 113, pp. 390) give some interesting figures from Birmingham, Ala., bearing on this point. In spite of the facts that colored people have about as many dogs per family as the white (0.28 to 0.32), that the Negro population is 40 per cent of that of the city, that nine times as many whites as blacks received antirabies vaccination, and that about 1 per cent of the owned dogs in Birmingham had rabies in 1938, still no case of rabies was reported in the city last year among either the Negroes or the white population. These figures support the general opinion that rabies is not easily communicated to man from dogs and that vaccinations are carried out after exposures for far too many unjustified reasons. There seems to be no case on record of man-to-man transmission of rabies, in spite of the virus being in human saliva and, in spite of the necessity of forceful restraint of patients by physicians and attendants.

Vaccine paralysis occurs about once in 5000 treatments. The mortality from this ailment is from 20 to 40 per cent, with various degrees of disability and performance of disability resulting. This is not a negligible sequel to vaccination and might be kept in mind in making a decision. Its cause is as yet unknown.

It seems that the public and certain physicians have assumed that the necessity for and the efficacy of antirabies vaccination are unquestioned. An objective view of the subject leads one to think that there is too much of merit in the procedure for it to be abused in application. On the other hand, there is enough of ineffectiveness and of danger in it for it to be **applied with judgment** and with recognition of the factors and circumstances associated with each specific application.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

CHANGING CONCEPTS

IN the early open air classes, emphasis was placed on malnutrition and anemia—either or both of which were considered at that time to be predisposing factors in the development of tuberculosis—and on known contacts with an open case of tuberculosis. Today it is recognized that no matter how pale or undernourished a child may be, he will not develop tuberculosis unless he actually takes tubercle bacilli into his body. Therefore the term “pre-tuberculous” is no longer acceptable and its use should be discarded. The best way to prevent infection among children is to remove the case of tuberculosis from the home. Infection in a child can be detected by the tuberculin test. Tuberculous disease in children between the ages of 5 and 15 years is relatively unimportant; the tubercle bacilli are apparently walled off and cause little damage. The walling-off process seems to operate just as rapidly and completely if the child remains in school and participates in the normal activities of child life as when strict bed rest is instituted. A school child who has a positive tuberculin reaction, but whose X-ray reveals nothing abnormal, who is apparently in good health, and who after a thorough investigation of his associates at home and elsewhere is found not to be in contact with an open case of tuberculosis, usually does not need special care. Nor is such a child capable of transmitting tuberculosis. He is, however, entitled to the health supervision which is due every child. Throughout adolescence and early adult life he should be given an X-ray examination annually and watched.

BELOW-PAR CHILDREN

“Malnutrition” is a loosely used term. Underweight is not necessarily a symptom of malnutrition, nor are all undernourished children underweight. The judgment of the physician based on one routine physical examination is not always dependable, for studies have shown that competent physicians vary widely in their independent judgments of nutritional status in the same children. Nutrition is not a single entity due to a single cause. Vitamin status, blood chemistry, and types and degrees of anemia are all recognized as important indices of nutrition status.

However, the physician can with some degree of reliability select those children who are physically below par. They include those who exhibit such symptoms as lack of stamina, lassitude, failure to gain weight, etc. Only a comparatively small number are below par primarily because

of a condition needing medical care. For those who do need medical care the course of action should be to set the machinery going to obtain adequate medical care.

A second group are those who are temporarily below par following illness or operations. Often such a child is better off in the ordered ways of school life although he is not able to carry a full program of work and activity.

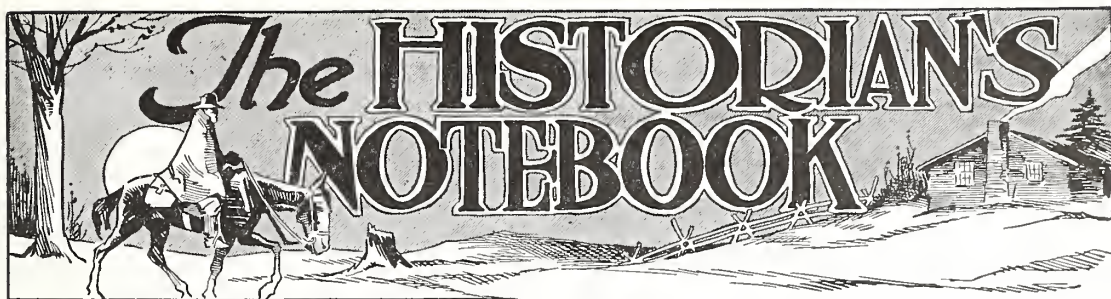
In the great majority of below-par children the cause is usually determinable only after study of the child in relation to his home and family. Poverty, ignorance and maladjustment may be factors. Only after a careful study of such factors can one hope to solve the problem.

SPECIAL CARE

Against this background of change in theories and facts the present-day problem of how to care for the below-par child must be met. Groups including the deaf, the crippled, the cardiacs and the visually handicapped need special adjustment of school procedures. For children with clinical tuberculosis special provision must be made for they are sick children. There remains a sizeable but less well defined group which includes children below par because of a condition needing medical care, or, temporarily, following an illness or operation, or from a variety of causes which may be socio-economic and related to the home. The school should provide for these below-par children a lightened school program together with extra rest. The easiest way to do this is by means of the segregated special class, but it is costly and educationally and socially unsatisfactory. How can the school best meet its problem?

The school physician can in the course of school physical examinations, select the below-par group for intensive study. The school physician, nurse, and teacher can by follow-up study of the child, the parents and the home, gain a better understanding of the underlying causes of the condition. These causes can, to a large extent, be removed or mitigated, by making social and economic adjustments in the home.—The Physically Below-Par Child. Publication of the N.T.A., 1940.

Early in the Christian era phthisis was treated with the liver of a wolf in wine, a beverage made from the hoof of an ox, thousand-legged worms or green lizards. Another prescription compounded the ashes of a snake killed between two wagon tracks at the rise of the dog-star.—Miss. State Sana., Sept. 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Practical Essays on Medical Education, and the Medical Profession, in the United States

By DANIEL DRAKE, M.D.

1832

ESSAY I

SELECTION AND PREPARATORY EDUCATION OF PUPILS

(Continued from June Issue)

ALTHOUGH medicine is ranked with the learned professions, not a few of its professors are signally deficient in learning.* This is the case not only in the western states, where for obvious reasons it might be expected; but in almost every part of the Union, with the exception of some of our large cities. Writing as I do for practical effect, and to promote reform, I am constrained to say, that even at this late period, the profession abounds in students and practitioners, who are radically defective in spelling, grammar, etymology, descriptive geography, arithmetic, and, I might add book-keeping, but that they generally apply themselves to the study of that important branch, with a diligence which supplies the want of early opportunities. Grammar and spelling especially, (to use the language in which I once heard a physician speak of the circulation of the blood), appear to among the "secret arcanums of nature which Dr. Hamilton said never would be found out." Nothing is more common than to commit gross violations of both in the directions which we write for our patients; and, what is still more humbling to the pride of the profession, not a few of us never learn to spell the names, either of the medicines which we administer, or the disease which we cure. Were this confined to unauthorized members of the profession, it would be an affair of

little magnitude; but extending to many of the graduates of all our Universities, it calls for unreserved exposure and unqualified reprehension. Before the Revolution, the schools of the Colonies were generally bad, and till lately those of the West were not fitted to impart a good elementary education; but at present they are so improved, as to leave no excuse for the literary ignorance which disgraces the profession. The taint, however, is hereditary, and may yet run through several generations, unless the authoritative members of the faculty can be moved to unite their prescriptions upon it. It would certainly not be unreasonable to require, that every youth who aspires to connect himself with a liberal pursuit, should first learn to spell and write his mother tongue with as much accuracy as a country schoolmaster; if either his genius or misfortune preclude such acquirements, he had better take to some calling which does not demand them.

On reading the foregoing sentences to a friend, I found him sceptical as to their accuracy; which leads me to declare, that I am entirely convinced of it. Nothing could be further from my heart, than a desire to disparage the character of a profession, to which, "man and boy," I have been attached for nearly thirty years, and to the advancement of which my humble exertions have been devoted for most of that period. During this time, I have become acquainted with the literary and professional ignorance of so many students and physicians, in and of, various parts of the Union, that I

*Of course, on this occasion, I expect the reader to understand the word professor as synonymous with practitioner, and not as referring to public teachers; whose commissions must be regarded as evidence of learning, should other proofs happen now and then to be wanting.

cannot be mistaken in asserting, that the majority of the profession in America, are deficient in common school learning. If such be the fact, it should not be considered libelous to publish it, especially when done by one who claims no exemption from the imperfections which he deplores. So long as we "measure ourselves by ourselves and compare ourselves among ourselves" we are not likely either to perceive or supply our defects. There can be no true reformation without a consciousness of its necessity; and if these remarks should contribute, but in the slightest degree, to excite it, I shall submit cheerfully to the odium which they may bring upon me, from those who find recrimination more convenient than improvement.

But is the education which our common schools confer, a sufficient preparation for the study of medicine? It certainly is not. To a familiar acquaintance with the branches which have been enumerated, the intended student of medicine should add a competent knowledge of the elements of physical geography, general history, the art of composition, algebra, geometry and mechanics. If these acquirements are not made before he enters on his professional studies, he will most probably remain without them through his whole life; the effects of which will be sufficiently obvious to others, if not felt by himself. After what has been said, concerning our deficiencies in the rudiments of learning, it will scarcely be supposed, that our acquaintance with the sciences of this second group, is such as to constitute a suitable introduction to medical studies. In truth, most of us live and die in utter ignorance of them. There was a time, when this ignorance, particularly of mechanical philosophy, would have been thought fatal to the success of a student of medicine. Our science was then, held to be a branch of general physics; and the laws of the living system, a mere modification of those which govern the operations of dead matter. I would be among the last to desire the revival of these exploded errors, but that we have passed from one extreme to another, seems to me an unquestionable fact. We cannot explain the phenomena of living bodies, by the principles of natural philosophy, but at the same time are unable to comprehend them, without the aid of those principles. The functions of seeing, hearing, locomotion, respiration, and circulation of the blood, can no more be understood without an acquaintance with the laws of natural philosophy, than the movements of the atmosphere or the heavenly bodies but their agency in the two cases is widely different. In the movements of the universe, we behold only the influence of these principles; but in the functions of organized beings, they are subordinate to a vital power; the laws of which constitute the science of life, or physiology. Thus, organized bodies present us with a

case, in which the general laws of all the works of God, we meet with no others which present such a great assemblage of agencies;—so diversified, yet co-operative—so admirably balanced—so harmonious, though complex and apparently involved—so productive of striking and beautiful forms! The human system is, indeed, the great mystery of creation, offering problems of matchless intricacy, and shrouded from human observation, by a veil which none should attempt to draw aside, without deep and varied preparation.

Suppose, what is not the fact, that to common-school attainments, our students added the first principles of mathematics, and the other sciences, constituting an academical course, would they then be properly benefited? I again answer they would not; and this brings us to the consideration of the learned languages, as an introduction to professional studies. I shall not attempt to travel over the whole ground.

The United States are, perhaps, the only civilized country in modern times, where it has been seriously doubted, whether the languages and literature of the ancients, should make a part of the studies of professional men. Of the various cases which have combined to suggest this question, one of the most operative is the spirit of liberal inquiry, which originated, and is cherished by our free institutions. No people are so unshackled by prejudices and precedents; none so excursive; nor so experimental, as the American. If they not "try all things, and hold fast to that which is good," they try many, and are strongly disposed to fix upon something new.

Another cause contributing to excite the same doubt, is the successful acquisition of business by physicians, who lived and died in ignorance of Greek and Latin. With such examples before us, it was natural to ask, whether the study of the dead languages should be regarded as indispensable, or even beneficial, to the candidate for the honors of the profession; and not a few have, at all times, been ready to answer in the negative. In this inquiry there has been much to lead us astray.

Our forefathers (most of whom were illiterate), emigrated to a forest, which it has been the occupation of their sons to subdue. In the prosecution of this Herculean task, and the subsequent establishment of institutions—political, social, and literary, they frequently experienced a want of appropriate means, and were compelled by the exigencies of their novel and trying situation, to think and act with originality. Hence arose a feeling of self reliance; a spirit of independence; a disregard of ancient customs; to which we may in a great degree ascribe that indifference to the languages and learning of antiquity, which characterized the majority of our citizens.

Thus physical circumstances have, indirectly, exercised a mastery over moral causes, and

given a deflection to our European character, which promises to become permanent. Moral causes, however, have contributed to the same effect. In migrating from the old world, our ancestors took leave of the institutions devoted to classical instruction; and hence a generation, of necessity, grew up in comparative ignorance. It would be in vain to hope, that a due respect for the learned languages, or even conviction of their utility, could survive such a transition; and hence we find, that in the United States, a want of acquaintance with them, has been no serious obstacle to the attainment of high relative distinction, in any of pursuits of society. How long this will be the case, it is not easy to foresee. A perception of their value appears to be returning; but I cannot suppose, that they will ever attain to the rank which they hold in the estimation of our elder brethren of Europe.

Meanwhile, it is the duty of those who can exercise any control over public sentiment in this respect, to exert themselves, and, if all who are interested in the dignity of the medical profession, could be brought to unite their efforts in favor of a more classical preparation of young men designed for the study, it cannot be doubted, that much might be accomplished, even in a single generation.

A physician who is ignorant of the Latin and Greek languages, whatever may be his genius and professional skill, must to the eye of sound scholarship, appear defective and uncultivated. For more than two thousand years, these languages, especially the former, were the vehicles of all medical knowledge, except the little contributed by the Arabians; and, till within a century, our professional ancestors wrote, and prescribed, and thought, and lectured, in Latin. It was indeed to the profession a universal language; affording the means of an easy and accurate correspondence, among all the schools and physicians of Europe. Even down to the present time, the lectures in most of the Italian and German Universities, are delivered in Latin; while the examination of candidates, in many others, is conducted in the same language. Thus it has had a most protracted and intimate companionship with medicine; to the nomenclature of which it has freely lent its opulent vocabulary. Many of its words, no doubt, as well as those drawn from the dialects of Greece, are intended to convey, in their new situation, ideas materially different from their vernacular import, but in attempting to understand even these, the student is greatly assisted by an acquaintance with their primitive significations. With this knowledge of our dependence on the languages and literature of the ancient, to deny that the study of them must be beneficial, is scarcely less absurd, than to affirm on the other hand, that every classical scholar is of necessity a physician.

But a thorough course of preparatory learning is useful, in more ways than one. It establishes early habits of application; generates a love of knowledge, trains the faculties; and inspires that firmness of purpose, which prevents him who puts his hand to the plough, from looking back. These are the cardinal virtues of a student; and they are in a great degree the effect of cultivation. We look instinctively at the grand and beautiful aspects of nature, but this is poetry, not philosophy. A poet delineates the surface, a philosopher decomposes the substance of things. One is born, the other called to his vocation. Education never made a great poet, nor nature a good philosopher. He is essentially the product of art. Toil is his destiny. He must sink a shaft, and draw up his treasures from below. Therefore he should be strengthened by timely and active effort. He must be inured to labour, and acquire adroitness in its performance. Hence he should begin early, for then only can suitable habits be formed. As well might he attempt, at twenty, to learn fencing, dancing, or a delicate and difficult art, as to commence at that age, without previous study, a course of philosophy. In both cases his awkwardness gives birth to the most discouraging failures. He feels, incessantly, the want of that strength and discipline, which are the offspring of practice, and are derived from it only. I would admonish parents to consider this subject anxiously and deeply. Many who place their sons to the study of medicine, are themselves illiterate, and do not apprehend the importance of early intellectual discipline. They transfer the objects of their care from the plough to the doctor's shop; and require them to exchange the recipes of agriculture for those of pharmacy. Of the multitude, a few, by the force of an irrepressible genius, may rise to eminence; but the majority must lag forever in the under walks of the profession. Not having learned to climb, when the art might have been acquired, they may assault, but cannot scale the rugged steeps of science.

It is sorrowful to see, what every physician must have seen, the exertions of a generous young man consigned to the study of medicine, with a mind untutored and unstored;—to witness his ill directed efforts—strong but comparatively unavailing; his fitful application; his embarrassments under every difficulty; his disappointments and despondency; above all his mortification, from a consciousness of superior abilities united with a perpetual conviction of inferior progress. No devotedness to study, no intensity of ambition, no energy of intellect, not the whole combined, can make such an one what he would have been with early culture, nor raise him to the standard erected by his own vivid imagination. He may satisfy his friends, but must himself remain dissatisfied and unhappy.

But let us turn to a more common case. Suppose the youth as deficient in strength, as he is in discipline of mind;—what will then be his progress? To answer with a solecism, it will be no progress. There can be no advancement, when both nature and art array themselves in opposition. The first lessons of science, are to such a person, a "sealed book;" which, like the worm, he may perforate, but can never open. Or to use a more national figure, he is a militia man without courage or discipline, when one, at least is indispensable to success. He cannot take captive, the vanguard of postulates, axioms, and definitions which lie in his way; and of course the citadel remains permanently hidden from his dim and uneducated vision. If dull young men must be apprenticed to medicine, common sense dictates, and common justice to them and society requires, that the pedagogue should begin his drillings early; for dunces are neither plastic nor acquisitive and where the tree of knowledge grows slowly, it should not be planted late.

With these remarks I close this branch of our subject. If I have spoken freely, it has been as a friend, not an enemy of the profession. I have not written from the recesses of a cloister, but in the midst of society. Observation and personal experience have dictated every sentence, and afforded me satisfactory evidence of its truth. For this, moreover, I might appeal to all my enlightened brethren of the United States. Not one of them could venture to gainsay, what has been asserted; nor commend the apathy which connives at the errors and abuses, which have been exposed. Let them begin the good work of reformation, and society will come quickly to their aid.

Annual Meeting of Ohio Public Health Association Held on June 5

On June 5 the annual meeting of the Ohio Public Health Association was held at Hotel Statler, Cleveland, during the Annual Session of the National Tuberculosis Association. A "get-together" breakfast of the executive committee, heads of service on the National Tuberculosis Association staff, full-time executive secretaries in Ohio, former recipients of O. P. H. A. scholarships at Ohio State University, and the officers and staff of the O. P. H. A. was held.

At a luncheon the principal speaker was H. R. Edwards, M.D., director of the Bureau of Tuberculosis, New York City Department of Health. The title of his address was, "Revitalizing the Tuberculosis Control Problem." At the business session, Charles A. Doan, M.D., Director of Medical Research, College of Medicine, Ohio State University, was re-elected president of the association. Other officers elected for the ensuing year were: Kennon Dunham, M.D., Cincinnati,

first vice president; Floyd A. Rowe, Cleveland, second vice president; J. E. Hagerty, Ph.D., Columbus, secretary; Chester C. Cook, Columbus, auditor; Carlton S. Dargusch, Columbus, counsel; and Thomas H. Dickson, Columbus, treasurer. Elected to the board of directors as members-at-large were: William Atkin, Warren; Mrs. George J. Blazier, Marietta; J. E. Hagerty, Ph.D., Columbus; Mrs. Malcolm Hartley, Pomeroy; H. D. Hazelrigg, Cadiz; Edward W. Laboe, M.D., Lima; Mrs. M. D. McCutcheon, East Liverpool; Stewart Morrow, Hillsboro; Mrs. William Schachleiter, Ironton; Sidney Whitaker, Hamilton; and Matthew Brown, Springfield.

Annual meeting of the National Tuberculosis Association was attended by over 1,700 persons. Practically every phase of the tuberculosis problem was discussed by authorities in the field and many medical and surgical clinics were held at the various hospitals. Some of the principal speakers were: Edward S. Godfrey, Jr., M.D., New York State health commissioner, and president of the American Public Health Association; Allen W. Freeman, M.D., professor, School of Hygiene and Public Health, Johns Hopkins University; J. A. Myers, M.D., professor of Preventive Medicine, University of Minnesota; Esmond R. Long, M.D., director, Henry Phipps Institute, Philadelphia; Louis I. Dublin, Ph.D., statistician, Metropolitan Life Insurance Company; and Fred H. Heise, M.D., medical director, Trudeau Sanatorium, Trudeau, N. Y.

High light of the convention was the annual banquet. Principal speaker of the occasion was Henry D. Chadwick, M.D., Waltham, Mass., president of the National Tuberculosis Association.

Officers of the national organization for the ensuing year are: Paul P. McCain, M.D., Sanatorium, N.C., president; J. Burns Amberson, Jr., M.D., New York, and G. C. Bellinger, M.D., Portland, Oregon, vice presidents; Charles J. Hatfield, M.D., Philadelphia, secretary; and Collier Platt, New York, treasurer. Joseph C. Placak, M.D., Cleveland, was elected director-at-large for a two-year term.

Open New Offices

Physicians who have recently established new locations in Ohio include the following: Dr. Roy D. Hildebrand, Cleveland; Dr. Arthur L. Watkins, Port Clinton; Dr. C. Howard Wood, Greenfield; Dr. H. E. Cheadle, Bryan; Dr. O. J. Fatum, Van Wert; Dr. H. D. Underwood, Van Wert; Dr. Alvin Novinsky, Bethel; Dr. Arthur K. Buell, Columbus; Dr. E. R. Hammersley, Uhrichsville; Dr. David L. Beers, Warren; Dr. W. H. Matuska, Ottawa; Dr. J. L. Plymale, Marion; Dr. W. B. Wild, Shreve; Dr. George H. Lemon, Fayette; Dr. Henry T. Lapp, Utica; Dr. Frank Ternocky, Bloomville.

Memorial for Dr. John Hole, First Physician of the Miami Valley, Dedicated at Centerville Ceremonies on May 31

AN early chapter in the history of Ohio medicine was commemorated with the unveiling of a handsome memorial to Dr. John Hole, first physician and surgeon of the Miami Valley, near his grave at the Centerville Cemetery on Friday, May 31. More than 300 persons from Centerville, Dayton, and throughout the Miami Valley, including five descendants of the pioneer physician, attended the ceremonies.

Principal speaker was Dr. Ben R. McClellan, of Xenia, honorary chairman of the Doctor John Hole Memorial Committee, the organization of which he himself originally suggested. Preceding Dr. McClellan's dedicatory address, the Centerville Ladies' Music Club presented two opening hymns to the accompaniment of an old-fashioned pump organ which had been transported to the cemetery especially for the occasion.

PROGRAM BROADCASTED

The complete commemorative program was broadcast by radio station WHIO, Dayton. Dr. Walter Simpson, who served as secretary of the memorial committee, was master of ceremonies and introduced Dr. McClellan. A number of dignitaries were in attendance, among them Former Governor Myers Y. Cooper and Mayor Charles J. Brennan, of Dayton. Mr. Cooper was called upon to make some extemporaneous remarks, and he extolled Dr. Hole's virtues and the important contributions he made toward settlement of the Miami Valley.

Cordons of Boy Scouts and Sea Scouts stood guard during the ceremonies and at the close sounded Taps and its response on the bugle. A guard of honor from the Veterans' Administration Facility at Dayton fired a salute over the grave of the pioneer physician at the close of the program.

DEED GIVEN MEDICAL SOCIETY

Mr. Charles Weidner, president of the Washington Township Trustees, made formal presentation to the Montgomery County Medical Society of the deed to the parcel of land on which the Hole memorial rests. Dr. Wilbur A. Ricketts, president, accepted for the society.

The Doctor John Hole Memorial Committee was organized about a year ago with the following membership: Dr. Ben R. McClellan, Xenia, honorary chairman; Dr. E. M. Huston, of Dayton, chairman; Dr. Walter Simpson, of Dayton, secretary; Dr. A. H. Dunham, Dayton; and Dr. Dudley Keever and Dr. Charles D. Slagle, both of Centerville. In raising funds to purchase the memorial the committee had the support of the medical societies in Greene, Clinton, Butler, Clark,

Miami, Darke, Champaign, Warren, and Montgomery counties.

DESCRIPTION OF PLAQUE

The memorial is located 70 yards west of the graves of Dr. Hole and his wife and five children, almost exactly on the site of the little frontier church where he and his family worshipped. Fashioned of the famous Milford pink granite, it weighs 10,000 pounds. The plot on which it stands has been attractively landscaped, and the State Highway Department plans to establish a parking lot on the highway near it so that automobiles may stop to visit this spot of historical interest. The cemetery is located just north of the Centerville corporation limits on the Dayton-Lebanon pike.

The inscription emblazoned on the monument's bronze plaque is as follows:

JOHN HOLE, M.D.

Born in Essex County, New Jersey, 1755. Army Surgeon from 1775 to the close of the Revolutionary War. Member of Medical Staff of Brigadier General Richard Montgomery, for whom Montgomery County was named at the suggestion of Doctor Hole. Settled near Silver Creek—now Hole's Creek—in 1797. Died in 1813. Buried in this cemetery.

THE FIRST PRACTITIONER OF MEDICINE AND SURGERY IN THE MIAMI VALLEY

A quiet, unassuming, firm, dignified man of indomitable will and courage, with simple trust in God's wisdom and a skilled physician who devoted his life to the welfare of the suffering.

This monument is erected and dedicated to his ideals
of service by the Physicians of the
Miami Valley.
1940

DR. MCCLELLAN'S ADDRESS

The following is the text of Dr. McClellan's dedicatory address:

"Oh! God of our fathers
Be with us yet
Lest we forget!
Lest we forget!

"May these words be an invocation as we are gathered here to honor the memory of one of the outstanding pioneers of the Miami Valley, Dr. John Hole, who was born on April 30, 1755, in Essex County, near Newark, New Jersey, and who died on January 6, 1813.

"His ancestry has been traced back to Alfred the Great of England. Of his early life in Essex County, New Jersey, we know little. But he must have been an unusual lad because at

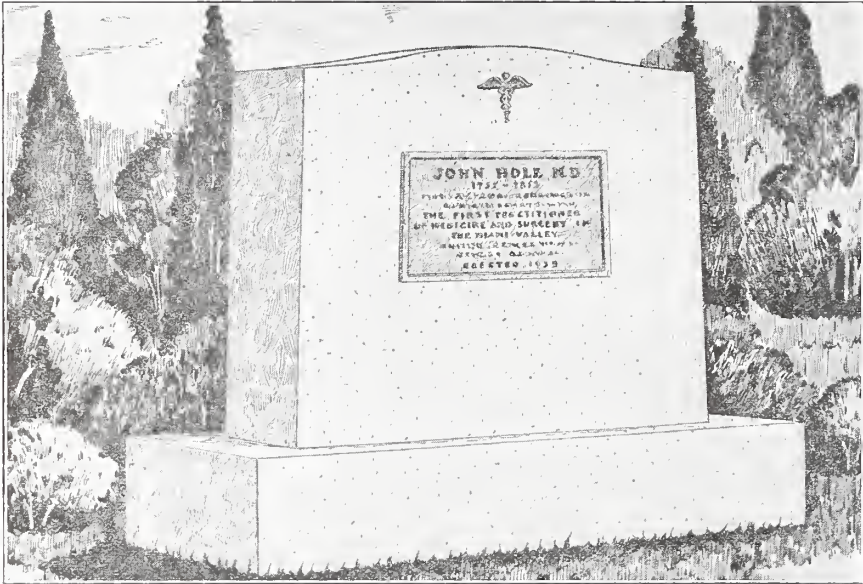
eleven years of age he attracted the attention of a prominent German, the family physician of the Hole family, who planned and paid for his pre-medical and medical training in Germany.

"Upon his return from Germany in 1775 he was appointed surgeon-mate to the 5th Pennsylvania Battalion, commanded by Colonel Robert McGraw. He afterward served on the Staff of General Richard Montgomery. He was present at the battles of Bunker Hill, Quebec and Montmorency. He served throughout the entire Revolutionary War. Dr. Hole's diary records the attack on Quebec which was made at midnight in

'If I had not known your father and you to be men who would tell nothing but the truth, I would not believe this story.'

"Of all his experiences during the War of the Revolution the greatest was being near General Montgomery when he received the fatal shot that sent him spinning like a top.

"In 1778 Dr. Hole married Miss Massie Ludlow, of Essex County, New Jersey, and to this union were born four boys and seven girls. Massie Ludlow was of the Badgley family, of old Virginia stock. This family goes back to Edward Doty, the 39th signer of the Mayflower Compact,



DRAWING OF MEMORIAL TO JOHN HOLE, M.D.

a blinding snow storm. It was meant to be a surprise, but they were fired upon by the British at once, and in the first volley General Montgomery was struck down near the base of the cliff. He was exposed to bitter cold and to the gunfire from the fort. His men tried to fire at the fort, but the strong wind had driven snow into the priming of the flintlocks of their rifles, wetting the powder, and rendering nearly every gun useless. Retiring to such cover as they could find the men worked in the dark trying to get their rifles to fire, but with no success. After a time a scouting party located and tried to remove General Montgomery, but were unable to do so. Dr. Hole then went up to help them, but found that the General's intestines had been shot out and had frozen to the ground. The General could still talk and said that he wanted to die where he had fallen, and asked that he be left there to die. His last words, uttered to Dr. Hole, were a secret message for General George Washington.

"When this message was delivered, General Washington was so astonished that he exclaimed:

of whom it is said that he was the one who brought in the first Thanksgiving turkey.

MOVED TO OHIO

"Dr. Hole practiced medicine in Essex County, New Jersey, until 1786. During the latter part of this year he moved to Mason County, Kentucky, but five months later he moved to Fayette County near the present city of Lexington. He stayed here about two years and then moved to Fort Washington, now Cincinnati, where he practiced medicine for seven or eight years, until 1796. While here he was sent out as surgeon with a detachment of soldiers from Fort Washington to pursue a tribe of Indians who were threatening an attack on Fort Washington. In their march up the Miami Valley their horses' legs were so stained by strawberries that the doctor thought this would be a good place to locate. The detachment halted and established a stockade to which they gave the name Hole's Station, which was later to be called Miamisburg.

"Dr. Hole returned to Fort Washington in the autumn of the same year, but returned in 1797

with his family and brother in company with a government land officer, near the present site of Miamisburg. The brother took up land in the river bottoms, but the Doctor prospected farther north and east until he came to Silver Creek. This creek he followed for five or six miles until he came to a wonderful spring of pure water, where he entered a section and a half of land. During the summer and autumn of this year Dr. Hole built a three-room cabin of round logs with puncheon floor and cat and clay chimney. In the spring of 1798 he moved his family from Hole's Station to the cabin in the wilderness on Silver Creek. A goodly portion of this land is still in the possession of his family. Today Everette O. Hole, a great, great grandson, lives very close to the spot where the first cabin was built. So great was Dr. Hole's influence in the Valley that the name of the creek was soon changed to Hole's Creek. It was here that three of his children were born. Dr. Hole's cabin soon became noted as a place of hospitality. Many travelers were recipients of his bounty, who, when asking for their bill for the night's lodging, were told, 'Go and do likewise.'

PRACTICED IN LARGE TERRITORY

"Here he practiced medicine over a wide territory as far north as Sidney, south to Cincinnati, east to Springfield and Xenia and west to the Indiana line. This practice was over a sparsely settled country teeming with wild animal life and Indians, many of whom were not friendly. Howling wolves made the night-time hideous, so that the children could not sleep until the doctor would frighten the animals away by unusual and weird sounds made on a conch horn.

"At the outbreak of the War of 1812, Dr. Hole was obliged to decline the position tendered him on the Medical Staff of the Army because of failing health. He died the following year.

"Words cannot describe the heroism required to practice medicine and surgery under such conditions. Indeed his pioneer life called for a courage equal to or surpassing that of his military experience, and certainly merits our highest admiration. The pioneers who settled in the Miami Valley were true patriots who had confidence in and believed in their country. It was their optimism and courage which made it great. There were no roads except of the corduroy type through the swamp lands. There were no bridges and he had to train his horse to swim the river. Many times he had to bivouac in the forest over night.

WHY DID HE CHOOSE THIS VALLEY?

"As to remuneration for services rendered, it is interesting to note that because of the scarcity of money due-bills were used, for example: 'For medical service I owe Dr. Hole one pair of leather boots for a boy child. (Signed) Benjamin Rob-

bins.' No one went without medical service who called Dr. Hole.

"Why did Dr. Hole choose the Miami Valley for his permanent home? He had not heard the statement made by a great world traveler of later years who said that the Miami Valley in Ohio has the greatest variety of soil, producing the greatest variety of crops of any place of equal size he had ever seen. Another noted student of tree life made the statement that there are growing native in the Miami Valley a larger variety of tree life than can be found growing native on the continent of Europe.

MAN OF GREAT WISDOM

"In his choice of a place in which to live and labor, as in all of his decisions, we find Dr. Hole a man of great wisdom and keen observation.

"Finally and best of all, he was a man of true Christian character. His was a life of service above self, well grounded in faith in the greatest Healer of all time. Dr. Hole, like St. Luke, the Beloved Physician, followed in the footsteps of his Master.

"How fitting it is to erect this Memorial on the very hallowed ground where he and his family worshipped God, and near to where he and his wife and three children are buried.

"The Physicians of the Miami Valley herewith dedicate this Monument to the memory of Dr. John Hole and pledge ourselves anew to fidelity and loyalty to our Country and our God.

"Our Invocation shall now be our Benediction.

"Oh! God of our fathers
Be with us yet
Lest we forget!
Lest we forget!"

Dr. Jameson Is Honored

Dr. George C. Jameson, "dean" of Oberlin physicians, was honored twice during the Oberlin College commencement week. He was honor guest at a dinner sponsored by the Varsity "O" Club in recognition of his 46 years as a member of the Faculty Committee on Athletics. At the invitation of the college he acted as honorary marshal of the Commencement processions. This year marks the 50th anniversary of Dr. Jameson's graduation from Oberlin College. He has practiced medicine in Oberlin since 1893, when he received the degree of doctor of medicine from the University of Pennsylvania School of Medicine, Philadelphia. President of the medical and surgical staff at Allen Memorial Hospital, Dr. Jameson has served as a member of the Oberlin Board of Health. Recently he completed a history of the medical profession in Oberlin. Dr. Jameson is a member of the Lorain County Medical Society, the Ohio State Medical Association and a Fellow of the American Medical Association.

New York Session of the A.M.A. Breaks All Records; 453 Ohio Physicians Register; Dr. Parke G. Smith Is Elected Vice-President; Dr. Follansbee Re-Appointed

FOUR hundred and fifty-three Ohio physicians registered at the Ninety-First Annual Session of the American Medical Association held in New York City, June 10-14, the largest meeting ever held by the A.M.A. and probably the largest medical gathering ever held.

The unofficial figure on attendance was 12,864.



DR. PARKE G. SMITH

A large number of Ohio physicians who attended participated in the program and scientific exhibits. The names of these physicians were published in the June issue of *The Journal*, pages 685-687.

Prominent recognition was given to Ohio by the House of Delegates in the election of Dr. Parke G. Smith, Cincinnati, immediate

past-president of the Ohio State Medical Association, as vice-president of the American Medical Association, and confirmation of the re-appointment of Dr. Geo. Edw. Follansbee, Cleveland, a past-president of the Association, as chairman of the Judicial Council of the A.M.A.

Dr. Smith was nominated for the office of vice-president by Dr. Ben R. McClellan, Xenia, chairman of the Ohio delegation, and he was elected unanimously. The re-appointment of Dr. Follansbee was made by Dr. Nathan B. Van Etten, New York City, who was installed as president of the A.M.A. at the New York meeting. In nominating Dr. Smith, Dr. McClellan paid a high tribute to him, pointing out his many qualifications for high office in the A.M.A.

All of Ohio's seven delegates attended sessions of the House of Delegates and took an active part in the proceedings. They were: Dr. McClellan, Dr. E. R. Brush, Zanesville; Dr. C. E. Kiely, Cincinnati; Dr. Claude B. Norris, Youngstown; Dr. Carl R. Steinke, Akron; Dr. B. J. Hein, Toledo, and Dr. John B. Alcorn, Columbus.

Two other Ohio physicians also served in the House of Delegates—Dr. Clyde L. Cummer, Cleveland, a past-president of the State Association, as delegate of the Section on Dermatology and Syphilology; and Dr. Russell L. Haden, Cleveland, immediate past-president of the Cleveland

Academy of Medicine, as delegate of the Section on Pharmacology and Therapeutics.

SERVED ON COMMITTEES

Four of the Ohio physicians serving in the House of Delegates were appointed to reference committees, namely: Dr. McClellan, chairman, Committee on Reports of Board of Trustees and Secretary; Dr. Kiely, Committee on Medical Education; Dr. Hein, Committee on Amendments to Constitution and By-Laws; and Dr. Cummer, Committee on Hygiene and Public Health.

At the concluding session of the House of Delegates, at which Dr. Smith was elected vice-president and Dr. Follansbee re-appointed to the Judicial Council, the following officers and members of the Board of Trustees were elected and appointments to various councils confirmed:

President-elect, Dr. Frank H. Lahey, Boston; secretary, Dr. Olin West, Chicago; treasurer, Dr. Herman L. Kretschmer, Chicago; speaker, Dr. H. H. Shoulders, Nashville; vice-speaker, Dr. Roy W. Fouts, Omaha; trustees, Dr. Ralph Fenton, Portland, Oregon; Dr. James R. Bloss, Huntington, West Virginia, and Dr. William F. Braasch, Rochester, Minnesota, the latter succeeding the late Dr. Charles B. Wright, Minneapolis; Council on Medical Education and Hospitals, Dr. John H. Musser, New Orleans, and Dr. Herman G. Weiskotten, Syracuse, succeeding Dr. Lahey; Council on Scientific Assembly, Dr. A. A. Walker, Birmingham.

Invitations for the 1943 meeting of the A.M.A. were received from San Francisco, St. Louis, and Detroit. San Francisco was selected by the House of Delegates. The 1941 session will be held in Cleveland and the 1942 session in Atlantic City.

The Distinguished Service Medal awarded each year by the A.M.A. was presented by vote of the House of Delegates to Dr. Chevalier Jackson, Philadelphia.

PROFESSION TO BE MOBILIZED

Most important action taken by the House of Delegates was the adoption of a resolution pledging the medical profession of the United States to active support of the country's national defense program and establishing the machinery for mobilization of the profession through a volunteer medical service corps to be organized and operated by the American Medical Association, its constituent state medical associations

and the component county medical societies of such state associations. Through this program the medical resources of the country will be organized on a voluntary basis for any emergency which may develop.

The profession will be organized in such a manner that medical personnel will be immediately available to meet the requests of the government for physicians for active duty with the military forces or with war industries. At the same time, sufficient medical personnel will be kept in reserve to meet the medical needs of the civilian population.

PREPAREDNESS COMMITTEE NAMED

A Military Preparedness Committee, composed of the following was selected to work out the organization of this national volunteer medical corps: Dr. Irvin Abell, Louisville, chairman; Dr. Stanley H. Osborn, Hartford, Conn.; Dr. Walter G. Phippen, Boston; Dr. Harvey B. Stone, Baltimore; Dr. James E. Paullin, Atlanta; Dr. Fred W. Rankin, Lexington, Ky.; Dr. Roy W. Fouts, Omaha; Dr. Sam E. Thompson, Kerrville, Texas; Dr. Charles A. Dukes, Oakland, Cal.; Dr. John H. O'Shea, Seattle; Dr. Van Etten, president of the A.M.A.; Dr. Olin West, secretary; Dr. Arthur W. Booth, Elmira, N. Y., chairman of the Board of Trustees; Dr. Austin A. Hayden, Chicago, secretary of the Board of Trustees; and Dr. Morris Fishbein, editor, *The Journal of the A.M.A.*

According to tentative plans, the A.M.A. through state and county medical societies will make a survey of the entire medical profession to ascertain those physicians who are willing to engage in active service with the military forces or war industries; those who are willing to serve in various capacities in their home communities; and those who because of disabilities, physical or otherwise, are not available for military or home service. Qualifications of physicians for various types of services will be obtained and catalogued. States and counties will be given quotas for the various branches of service. When personnel is needed and requested by the government, physicians will be called upon to serve in accordance with the quotas assigned to the various states and counties.

ADVANTAGES OF PLAN

Those who have worked out the basic plans state that under this plan physicians will be assigned to duties for which they are especially qualified, a sufficient number of medical personnel will be kept at home to care for the civilian population, and the danger of complete federalization of the medical profession under military necessity will be minimized.

Among other actions of the House of Delegates was endorsement of amendments to the proposed Federal hospital building law advocated previously by the Board of Trustees of the A.M.A. and adoption of a proposal to submit to the

House of Delegates in 1941 an amendment to the Constitution of the A.M.A. restricting membership in the A.M.A. to doctors of medicine.

OHIO DOCTORS REGISTERED

Ohio physicians who had registered at the New York meeting up to Friday morning, June 14, were:

Akron—Millard C. Beyer, Edmund R. Blower, J. G. Blower, Sidney B. Conger, Adrian E. Davis, Paul A. Davis, Henry H. Gibson, Horace E. Groom, C. T. Hill, Carl E. Krill, D. B. Lowe, Noah Miller, Samuel Miller, G. K. Parke, Dallas Pond, Howard W. Reed, Jay D. Smith, Carl R. Steinke, Edward L. Voke, Karl D. Way, Edmund A. Weeks, Louis A. Witzeman.

Cincinnati—William B. Bean, Samuel W. Bell, Julien E. Benjamin, Joseph Bolin, Samuel Brown, Richard D. Bryant, R. J. Buckman, John A. Caldwell, Howard D. Fabing, Carroll J. Fair, John A. Fisher, Nathan Flax, Joseph A. Freiberg, Joseph N. Ganim, Wm. M. German, Nicholas J. Giannestras, Lawrence C. Goldberg, Douglas Goldman, Ralph Wm. Good, J. Victor Greenebaum, Albert L. Haas, George Heidelman, Louis J. Hendricks, Mortimer Herzberg, Carl R. Hiller, J. I. Hofbauer, Charles A. Hofling, Jr., Chas. E. Howard, Benjamin Hoyer, H. I. Humphrey.

D. E. Jackson, Robert A. Kehoe, Karl V. Kitzmiller, A. J. Light, Willard Machle, John J. Maloney, A. Graeme Mitchell, Harold K. Moss, Maynard Murray, Dale P. Osborn, Helena T. Ratterman, Horace W. Reid, Andrew C. Renz, E. E. Rhoads, Daniel C. Rivers, Leon Schiff, Harold S. Schiro, Bernard Schwartz, Raymond G. Senour, I. C. Sharon, Charles M. Siegel, Tom D. Spies, Eugene H. Sterne, F. M. Stephens, Clifford J. Strachley, Cecil Striker, Emil R. Swebston, Richard S. Tyler, Derrick Vail, Ward H. Ventress, A. R. Vonderahe, Millard Wallenstein, H. B. Weiss, Ashton L. Welsh, Carl A. Wilzbach, Henry L. Woodward, Carl Wyler, Mendel Zeligs.

Cleveland—Fred Adelstein, Emil H. Adler, Herman S. Applebaum, Eugene J. Arday, A. J. Beams, Edmund E. Beard, S. L. Bernstein, Leonard H. Biskind, C. A. Black, Edw. J. Braun, L. S. Brookhart, David A. Chambers, Herbert E. Christman, Milton B. Cohen, Harold N. Cole, E. N. Collins, T. H. Copeland, Wm. F. Creadon, Clyde L. Cummer, Gerard De Oreo, Robert J. Dial, James A. Dickson, J. Frank Donnen, Robert S. Dinsmore, Charles T. Dolezal, Frank J. Doran, Ed Eichner, I. H. Einsel, Warren C. Fargo, F. Graham Fallon, Sidney Feuer, Joseph J. Fink, Geo. Edw. Follansbee, William J. Fornes, Eugene Freedman.

Farrell T. Gallagher, Curtis F. Garvin, Marion N. Gibbons, Frank S. Gibson, Virgil S. Glass, Charles F. Good, Joe I. Goodman, C. Lee Graber, Russell L. Haden, Carl W. Hahn, John E. Hannibal, Charles L. Hartsock, H. R. Hathaway, Harry Hauser, Grant M. Hawk, Jos. V. Heimann, J. R. Heller, Samuel Hindman, Lloyd L. Hoskins, John W. Houk, L. F. Huffman, E. J. Humel, Chester R. Jablonoski, James J. Joelson, Louis J. Karnosh, Howard T. Karsner, Benj. S. Kline, Peter N. Knusli, Helen M. Koke, Charlotte E. Kusta, C. G. La Rocco, James T. Ledman, James J. Marek, E. A. Marshall, Robert J. May, John J. McCarthy, Jarrell E. Miller.

Chas. F. Nelson, Bernard H. Nichols, Oscar Pan, V. F. Pekarek, D. O. Pirrone, Lawrence A. Pomeroy, U. V. Portmann, John K. Potter, Cora J. Randall, Faith W. Reed, Rudolph S. Reich,

Joseph M. Rossen, V. C. Rowland, Boris B. Rubenstein, Albert D. Ruedemann, A. G. Sar-Louis, A. G. Schlink, Henry A. Schlink, Haskell H. Schweid, Roy W. Scott, Alvin O. Sibila, Alexander M. Simpson, James F. Slowey, Harry Sniderman, Walter M. Solomon, John A. Sommer, Lorna Spenser, Robert M. Stecher, G. W. Stober, Abraham Strauss, J. J. Thomas, John A. Toomey, John T. Vitkus, Samuel J. Webster, Beulah Wells, Hal P. Wells, Carl J. Wiggers, Theodore A. Willis, Zolton T. Wirtschaffter, Edward E. Woldman, Irwin E. Yoelson, Anna M. Young, Walter J. Zeiter.

Columbus—John B. Alcorn, Shirley Armstrong, Robt. L. Barnes, H. A. Baughn, R. W. Bonnell, H. M. Brundage, Philip I. Burack, Andre Crotti, George M. Curtis, A. Henry Dunn, E. J. Emerick, James M. Foley, Jonathan Forman, H. D. Giles, Emilie Gorrell, E. V. Haam, Frank E. Hamilton, Walter H. Hamilton, Wm. B. Harris, Frank A. Hartman, George J. Heer, Arthur G. Helmick, John M. Hoyt, F. C. Hugenberg, Albert B. Landrum, Louis Mark, Charles W. McGavran, Robert J. McGuinness, G. B. Nessley, Joseph Price, Thomas E. Rardin, Harry L. Reinhart, Louis J. Roth, Robert H. Schoene, Charles J. Shepard, Joseph H. Shepard, Edwin J. Stedem, Erwin W. Troutman, J. H. J. Upham, Frank Warner, Edward Harlan Wilson.

Dayton—Sterling H. Ashmun, E. E. Bohlender, Anderson T. Bowers, C. E. Burgett, Alva Dean Cook, Arthur M. Culler, M. E. Coy, Howard V. Dutrow, R. K. Finley, K. Fowler, Charles Froug, Geo. D. Gohn, Gerald C. Grout, H. C. Hanning, Wm. H. Hanning, W. Richard Hochwalt, J. K. Hoerner, H. W. Kendall, Harold F. Koppe, Elmer C. Loomis, S. N. Maimon, M. B. Menke, J. W. Millette, Benedict Olch, Robert E. Pumphrey, L. Everett Seyler, Everett W. Shank, Walter M. Simpson, Henry Snow, B. F. Suffron, Edward E. Thomas, R. E. Tyvand, Giles Wolverton, Paul L. Yordy.

Toledo—A. A. Applebaum, H. K. Beckwith, Reed O. Brigham, A. A. Brindley, Thomas H. Brown, B. B. Caplan, Fred M. Douglass, Karl D. Figley, Hugh M. Foster, John Gardiner, Will Gardiner, Stanley D. Giffen, Matthew Ginsburg, Barney J. Hein, John F. Hillabrand, K. R. Howard, Raymond C. King, J. Lester Kobacker, L. A. Levison, Martin R. Lorenzen, Charles Lukens, K. C. McCarthy, Edward J. McCormick, Nelson Morris, Wallace Morton, John T. Murphy, Howard J. Parkhurst, William A. Phillips, Bert Seligman, Herbert M. Shellenberger, Bernard Steinberg, Irwin Stover, Robert B. Tucker, I. B. Winger, Theodore Zbinden, Samuel D. Zuker.

OTHERS WHO REGISTERED

D. D. Hamlin, Perry F. King, W. C. Manchester, Geo. M. Wilcoxon, Albert Wild, Alliance; L. H. Martin, Ashland; Taylor Smith, Avon; Harry S. Berlesky, Stephen T. Turney, Barberton; D. M. Creamer, Bellaire; Charles L. Barrett, Bellefontaine; Elizabeth Workman, Bladensburg; H. W. Mannhardt, Bowling Green; J. Elmer Patton, Reo M. Swan, Cambridge; C. N. Clark, Emerson Gillespie, George S. Hackett, Anna R. Hendrickson, Wm. H. Jacobson, Charles A. LaMont, A. A. Lichtblau, James A. McNalley, Joseph E. McNalley, E. O. Morrow, J. Edwin Purdy, H. M. Schuffell, L. D. Stoner, Homer V. Weaver, Canton; Lewis W. Cello, Carrollton; C. D. Slagle, Centerville; R. E. Bower, Glen Nisley, Michael S. Tramontana, Chillicothe.

E. M. Wright, Coshocton; Edward C. Brandt, Crestline; A. Ralph Keirn, Dalton; James G. Parker, Delaware; B. L. Johnson, Deshler; C. J.

Brian, Eaton; R. J. Emslie, Leonard H. Harris, Frank A. Lawrence, Maurice Rosenzweig, Elyria; Warde B. Smith, Frankfort; O. W. Rapp, Fredericktown; Clarence Adams, Galion; Leo C. Bean, Gallipolis; P. H. Leimbach, Greenford; L. E. Anderson, Greentown; Clifford G. Foor, Hillsboro; C. B. Geiger, Holgate; C. F. Goll, Hopedale; Chester A. Casey, W. Ray Swango, Ironton; George H. Wood, Leesburg; R. B. Krouse, David L. Steiner, Lima; E. L. Crum, Lodi; A. J. Loser, Lorain; John G. Anderson, Lynchburg; T. F. Smyth, Lyons.

Burr M. Hathaway, R. V. Myers, Myron S. Reed, Stanley C. Schiller, J. A. Yoder, Mansfield; John F. Weber, Marietta; E. L. Brady, Warren C. Sawyer, Jack F. Smyth, Marion; R. H. Wilson, Martins Ferry; J. D. Holston, Jack E. Klinge, Geo. N. Wenger, Massillon; H. P. H. Robinson, Medina; Howard Stephens, Mentor; David F. Berger, Mabel E. Gardner, Middletown; H. W. Wertz, Montpelier; James F. Lee, Harry W. Miller, Mt. Vernon; Leonard A. Blum, Niles; J. R. Janney, North Baltimore; L. L. Frick, North Canton; B. F. Sawyer, North Star; R. W. Bradshaw, Virgil C. Hart, Edna Watt Schrick, Oberlin; O. P. Ulrich, Orrville; W. B. Light, Ottawa.

Morris G. Carmody, Painesville; Kenneth W. Taylor, Pickerington; D. A. Berndt, Roy P. Elder, George E. Obrist, Portsmouth; Lewis L. Liggett, St. Clairsville; Guy E. Noble, St. Marys; V. A. Killoran, E. J. Meckstroth, Henry L. Sowash, Paul N. Squire, Sandusky; E. R. Brubaker, Carl D. Marsh, Ray M. Turner, Springfield; Howard H. Minor, S. J. Podlewski, Steubenville; L. N. Lindenberg, Troy; R. A. Styblo, Valley City; J. B. Sampson, Van Wert; R. D. Herlinger, Warren; J. C. Steiner, Willard; Wm. Kelley Hale, Wilmington; Alonzo C. Smith, Wooster; Ben R. McClellan, Reyburn McClellan, Xenia; L. L. Taylor, Yellow Springs.

E. C. Baker, Wm. H. Bunn, Marvin B. Goldstein, William F. Hatcher, Gabriel B. Kramer, John S. Lewis, Jr., H. E. McClenahan, David E. Montgomery, Ralph R. Morrall, Claude B. Norris, Robert E. Odom, Henri Schmid Samuel H. Sedwitz, Wm. M. Skipp, Walter K. Stewart, O. J. Walker, Youngstown; Edmund R. Brush, William B. Fairecloth, Myron Freilich, M. A. Loebell, Zanesville.

Celebrate 40th Anniversary

The Class of 1900, Cleveland College of Physicians and Surgeons, celebrated its 40th anniversary with a dinner at the Hotel Cleveland, Cleveland, Tuesday, June 11. Present were: Dr. Fred W. Linn, Dr. Myron F. Metzenbaum, Dr. W. F. Hribal, Dr. Henry Edelstein, Cleveland, and Dr. Harry Bookwalter, Columbiana. Regrets were read from Dr. Benj. F. Hambleton, Dallas, Texas; Dr. Henry C. Crumrine, Los Angeles, Calif.; Dr. Joseph Welfeld, Chicago; Dr. Wm. A. McConkey, Canton; and Dr. V. N. Marsh, Fainesville. Six sons of members of the class have followed their fathers into the practice of medicine. They are: Dr. Robert F. Linn, assistant resident in obstetrics, University Hospital, Baltimore, Md.; Dr. Charles F. Ward, Cleveland; Dr. M. H. Crumrine, Los Angeles; Dr. H. H. McConkey, Canton; Dr. Lee Bookwalter, Columbiana, and Dr. A. A. Welfeld, Baltimore, Md.

Profession Must Not Forget Domestic Issues During World Crisis, Dr. Skipp Warns in Eighth District Meeting Talk

A WELL-ATTENDED meeting of the Eighth Councilor District was held at Rocky Glen Sanatorium, McConnelsville, on June 20. Members of the district were guests of the sanatorium at a luncheon which was followed by a business meeting and addresses by Dr. William M. Skipp, Youngstown, President of the Ohio State Medical Association; Dr. George F. Swan, Cambridge, councilor of the Eighth District; and Professor Felix Held, Ohio State University, Columbus. A program of organ music was given by Miss Charlotte Deeble, Columbus.

In the afternoon two scientific addresses were made. Dr. André Crotti, Columbus, spoke on "Some of the Latest Conceptions of the Cause of Cancer"; and Dr. Chevalier L. Jackson, Philadelphia, discussed, "Bronchoscopy and Bronchography as Aids in the Diagnosis and Treatment of Broncho-Pulmonary Diseases".

The program was arranged by officers of the district: Dr. Carl W. Brown, Lancaster, president; Dr. L. E. Stenger, Lancaster, secretary; Dr. Swan, Cambridge, councilor; and Dr. Louis Mark, Columbus, medical director of Rocky Glen Sanatorium; and H. A. Phillips, superintendent of the sanatorium.

NEED UNITED PROFESSION

In his address, Dr. Skipp cautioned members of the medical profession not to lose sight of the importance of domestic issues vitally affecting the profession in the confusion which has resulted from the international emergency, pointing out that now more than ever before there is a desperate need for vigorous action and solidarity within the ranks of the medical profession. Dr. Skipp's remarks on the international situation and on some of the vital problems which deserve the immediate attention of Ohio physicians were as follows:

"The crisis in international affairs looms so large in most of our minds that we find it hard to pay attention to any other issues. In this respect physicians are quite like everybody else. In fact, we as a group of men are, if anything, perhaps more interested in the catastrophe of a world at war because if circumstances demand mobilization of America's fighting strength, our profession will be summoned to service along with the military. Our concern in the nation's course at this time is as vital as any other non-military group in the country.

MUST REMAIN ALERT

"I must remind you, however, that we cannot afford, we dare not, lose sight of the importance of the domestic issues with which we are directly

concerned. By comparison with the awful events that are taking place in Europe our own local problems may dwindle until they seem to become petty. But if we slip completely into this attitude, the outcome will be fatal. Even though we are engrossed in the progress of Europe's war and the prospects of American intervention, let us keep two things in mind: first, we must maintain our interest in the problem of making adequate medical care more readily available to everybody; and second, we must continue our efforts to uphold and defend the standards of medicine as practiced today in America.

"If we relax our active opposition to the proposed plans for altering the practice of medicine which we believe would be detrimental to both the public and the profession, we are inviting calamity. This is particularly true at this time. For there is, as you well know, the likelihood that regimentation of the healing arts will be termed "necessary for the national defense" and will therefore be included in the general plan for re-making the nation's economy if we approach any closer to war. The so-called M-day plans call for regimentation of almost every activity, and we may reasonably believe that medicine will be among the first to be pushed into a governmental pattern.

MUST THINK OF FUTURE

"If we, as a united profession, are not alert to this possibility and do not demand a voice in deciding our own destiny, we shall undoubtedly find ourselves in a distasteful predicament after the crisis has blown over or the war is fought to victory or exhaustion. The regimentation may be regarded as a temporary measure at the outset, but I am convinced it would be exceedingly difficult, if not impossible, to effect a return to sound methods of medical practice after the threat to our national security subsides.

"There is another possibility against which we must remain vigilant. Although the attempt to make medicine conform to a regimented pattern may not come as part of the sweeping reforms demanded by the national emergency, those who advocate such a change may take advantage of the situation and try to strike an unnoticed blow. Political control of medicine may be slipped in as an innocent-appearing part of some large emergency measure. The entering wedge which would eventually subject the practice of medicine to bureaucratic domination might easily be inserted quietly while the nation is furiously taking stock of its unity and defense strength. This cannot happen, however, if the great body

of American physicians continues its efforts to guide the progress in medical care and health protection along lines we know are most beneficial.

A REAL OBLIGATION

"Perhaps I have painted an unduly dismal picture of the worst that might befall American medicine during this quick-change period of international crisis. If so, my only purpose has been to convince you that we cannot afford to drop our interest in the problems of providing medical care or shove it into the background while we pay more attention to what kind of a world will emerge from the present conflict. Working through our professional organizations, we must continue the activities which we have begun to insure equitable distribution of medical services. War or no war, it is still our obligation to see that every American citizen receives the full blessings of modern medical science and to see that whatever new methods toward this end are established are compatible with our ideals and of greatest benefit to all.

"For this reason the Ohio State Medical Association is still carrying on its work with problems such as provision of adequate physicians' services for the indigent and plans for making complete medical care more easily accessible to the low income group. Our Committee on Medical Service Plans and our Council have been commissioned by the House of Delegates to seek passage of a law which will permit establishment of plans in communities where they are needed to enable low-wage earners to defray the costs of health protection through voluntary prepayment under the guidance and sponsorship of the medical profession. In this project the State Association is doing work of great social importance, and it deserves the full support of every member of the Eighth District.

"Our Committee on Poor Relief and our other officers concerned with the problem of the indigent and medically indigent will continue their efforts during the coming year to work out a more satisfactory arrangement whereby persons dependent on public aid will be assured of the best care medical science has to offer. When you review in your own mind the progress that has been made on this problem in the last few years, you will agree it is considerable. But the present status of the problem, as you are aware, is not completely satisfactory in Ohio, and there remains work to be done in which the medical profession must take active part. These activities, too, deserve the unlimited support of every member of the Eighth District.

TWO IMPORTANT QUESTIONS

"These are two questions of utmost importance to us just now—how can we make certain that the indigent are cared for, and how can we help

the man in the low-income group to get the modern medical care that he and his family need? They are two distinct problems, for it is already a universally accepted principle that public funds must provide for the indigent group, while the man of limited income needs only help in budgeting the costs of illness and health services. But while they are distinctly different problems, they are at the same time of parallel importance to us, and we regard them as such in the State Association. We must work toward solution of both the problems together, for solving one and ignoring or delaying the other would be useless. If we are to preserve the system of private medicine that we believe in, we must make every possible effort to see that nobody can justifiably indict us for deficient medical services in either the indigent or the low-income groups.

"Don't think that your State Association is attaching undue importance to the medical problems of the indigent and the low-wage earner. We realize that if we of the medical profession do not step in and try to solve those problems as they should be solved, other groups will do it for us—and perhaps in a manner that we would not like. It is a fact that in urban areas certain employe groups are awaiting the chance to set up medical service plans for their members with little or no thought of consulting the medical profession. Nor is this lay interest restricted to the cities. In the rural areas farmer groups already have started persistent agitation for plans based on the consumer cooperative principle over which the medical profession would have no control whatsoever. If we sit back complacently and assume that the situation will eventually take care of itself, we shall find someday that unqualified lay groups have stepped into the field of medical care and elbowed us out.

NO TERRITORIAL LINES

"I warn you also against assuming that these problems can be defined as strictly urban or strictly rural. It may be true that some cities have felt the need of action a great deal more than certain rural areas—or than some counties in your own Eighth District, perhaps. But you cannot draw territorial lines around these problems. You cannot assume that, since the situation may be satisfactory in your own county, you need pay no attention to the activities in other counties. Whether you need a medical service plan in your own community or not, you cannot be indifferent to efforts elsewhere in the state to set them up. For, if this is to be medicine's attempt to meet the need for more equitable distribution of physician's care in Ohio, the entire profession in the state must present a united interest in it.

"In conclusion, I should like to emphasize again that now is the time to intensify our

interest in the problems that confront medicine and to increase the strength and efficiency of our medical organization. It is not easy, I know, to sustain an interest in issues like these when nations are locked in the death grips of a historic conflict. But to relax our interest now in the problems I have referred to today—the task of helping the low-wage earner purchase adequate medical care and the job of seeing that the indigent are provided for—means to lose valuable ground that we cannot later regain. Therefore, I recommend that each of you maintain your active interest in the efforts of your county societies and your State Association toward these ends.”

Additional Funds for Poor Relief Provided by Legislature at Four-Days Special Session

A four-days special session of the Ohio General Assembly was adjourned on June 20 after the Legislature had enacted into law all of the proposals included in the call for the special session issued by Governor Bricker.

The following measures were passed for the Governor's signature:

An appropriation of \$1,460,387 for poor relief, to be distributed to local subdivisions on the basis of their relief expenditures last year and an allocation of \$333,333 to the Emergency Board to be lent to cities and counties for poor relief on request.

A bill separating the national and state tickets on the ballots used at general elections.

An additional appropriation of \$1,000,000 to be used in providing aid for the aged, to be matched by the Federal Government, so that about 17,000 cases now pending can be taken care of.

A bill increasing from \$30 to \$40 the maximum that may be paid monthly to recipients of aid for the aged, effective January 1, 1941, to make the Ohio law conform to the present Federal law.

A measure permitting the state to receive 50 per cent, instead of 30 per cent, of the cost of caring for dependent children from Federal funds.

A bill re-enacting a law which permits local subdivisions with decreasing debt loads to fund their 1939 poor relief deficiencies.

A measure increasing from \$400 to \$480 a year the maximum allowance to recipients of blind aid and placing all persons employed under the blind program under civil service.

A bill empowering Ohio corporations to engage in the manufacture of implements of war as a part of the national defense program even though such corporations are organized for other purposes and are not permitted to engage in war industry under the terms of their present corporation charter.

The program was adopted without the imposi-

tion of increased or new taxes. The Governor, in his message to the General Assembly, stated that a sufficient balance exists in the general revenue fund of the state to meet the approximately \$2,500,000 needed to finance the measures which were enacted.

Appointments which had been made by Governor Bricker since the regular session of the Legislature was adjourned in May, 1939, were confirmed by the Senate, among them the following: Dr. R. H. Markwith, state director of health; Dr. Thomas H. George, Cleveland; Dr. Ralph B. Taylor, Columbus, and Dr. Claude V. Davis, Pennsville, as members of the State Medical Board; and James A. White, Columbus, as a member of the State Industrial Commission.

On the first day of the special session, the House of Representatives elected Representative Harold W. Houston, Champaign County, as speaker pro tem (majority floor leader) to succeed J. Harry McGregor, Coshocton, resigned, who was elected last Spring as a member of the House of Representatives of the United States Congress, representing the 17th Ohio Congressional District. Although serving his first term in the Ohio General Assembly, Mr. Houston, an Urbana attorney, has been one of the most able and outstanding members of the House. Floor Leader Houston was elected in 1938 without opposition in either the primary or general election and he is unopposed for re-election.

Coming Meetings

American Academy of Ophthalmology and Otolaryngology, Cleveland, Oct. 6-11.

American College of Physicians, Boston, April 21-25, 1941.

American College of Surgeons, Chicago, Oct. 21-25.

American Congress of Physical Therapy, Cleveland, Sept. 2-6.

American Public Health Association, Detroit, Oct. 8-11.

American Roentgen Ray Society, Boston, Sept. 26-Oct. 4.

Association of Military Surgeons of the United States, Cleveland, Oct. 10-12.

Interstate Postgraduate Medical Assembly, Cleveland, Oct. 14-18.

Southern Medical Association, Louisville, Nov. 12-15.

Southern Surgical Association, Hot Springs, Va., Dec. 10-12.

Medical Care for Recipients of Public Assistance in Ohio

HON. CHARLES L. SHERWOOD

State Director of Public Welfare
Columbus, Ohio

EDITOR'S NOTE: An address of great interest to all members of the medical profession of Ohio was made by Hon. Charles L. Sherwood, State Director of Public Welfare, at the Conference on Medical Program for Recipients of Public Assistance, held on Thursday, May 16, during the 94th Annual Meeting of the Ohio State Medical Association at Cincinnati. The conference was arranged by the Committee on Poor Relief. A report on Mr. Sherwood's address and the question-answer period which followed is presented by The Journal and should be read by all members.

* * *

MR. CHAIRMAN, members of the Ohio State Medical Association: I want to express my pleasure at this opportunity of being here and discussing some of the matters in which we are both vitally interested. I want to say before I start that I don't know everything; and I don't know most of the answers which you might expect me to give you. We have had some relationship with the problem. We know some of the problems and the multitude of complex collateral problems that are involved in the major problems, but the answer hasn't been reached yet although steps have been made toward that end.

I have had a very pleasant personal relationship with the medical profession. The very nature of the department of which I have the honor of being the head, throws me into close contact with the medical profession and the various ramifications of institutional service which are in the department.

VARIED MEDICAL ACTIVITIES

We have 13 institutions with 25,000 patients who are being treated for mental illness, epilepsy, feeble-mindedness, etc. There are about 13,000 other persons in the penal institutions. So I am the victim, if you please, of the impacts of the medical profession almost daily and continuously.

We have a direct functional activity in the Department of Public Welfare which is also strictly and solely medical. You might ask yourselves the question as to why the one state institution which has been created for the purpose of treating incipient tuberculosis and the study of tuberculosis should be in the Department of Public Welfare rather than in the Department of Health where surely functionally it belongs.

The Welfare Department is growing a good deal like Topsy. From time to time new functions have been added to it and sometimes I think the General Assembly suddenly looks around and creates a new function as a result of public demand and asks, "Where will we put its administration?" And then says: "The Department of Welfare? That sounds pretty good. We will put it over there." So that over a period of years there has grown up a hodgepodge of related and unrelated activities covering a realm of activities

in which the state engages, some of them properly, and some of them probably not validly a part of the department's activities.

TWO CLASSIFICATIONS

The particular thing you are interested in having discussed today is the question of medical relief, medical care as defined by law. I think basically we might ask ourselves two questions, not to be answered, but to be thought about.

The first is: What is medical care? Is it medical services for those who are on relief or is it a public health program financed out of public funds to cover all those who are unable to pay for it themselves? As you can readily see, there is a vast distinction in these two classifications. As you well know, the A.M.A. has already defined those who are medically indigent, which does not necessarily include those who are only on relief and unable to pay for medical, surgical and pharmaceutical services and supplies. So, you have a distinction between medical care as such and as defined in the present law affecting medical relief and those who are medically indigent.

Basically, the American people are faced with a problem not only of medical relief, but in all types of public assistance, as to how much we can afford to pay or, conversely, how much we can afford not to pay for it. What that answer is and where that line is, I haven't the slightest idea but surely as American citizens and citizens of the Commonwealth of Ohio, that is an important factor.

I think for the purpose of this discussion today I would like to limit myself within the time which has been allotted to me, to two things out of which will grow some ramifications. I understand there is to be a question period following this discussion. I might take advantage of that and use up the entire period so that you couldn't ask me any questions. However, I will try to limit my remarks to the time allotted so that we may have some questions and time to answer them.

PRESENT RELIEF ACT

Basically, then, I want to confine myself to the provisions of the present and existing relief law

as it affects poor relief and as medical relief is affected in the other categories of relief, so-called public assistance, which are administered by the State Department of Public Welfare and financed in whole or in part by either state, Federal or local funds.

This present relief bill, let me say, is probably the best relief bill that has been yet passed by the Legislature, because it distributes the money which is expended for relief, on a reimbursement basis. Relief is defined in the act as direct relief, work relief and medical care, medical care being also defined as services of physician and surgeon wherever performed. The money is distributed so that the subdivisions administering relief are reimbursed by the state in an amount not to exceed 50 per cent of their actual expenditures. Those subdivisions which do not have a relief load, an excessive per capita relief load—let us say, do not participate excessively. The percentage is exactly the same in each and every subdivision of Ohio.

Prior to the enactment of this act, there were 82 relief bills passed by the Legislature since 1932. Frankly and obviously, most of them were emergency relief bills, refusing to face the fact that relief then and now is no longer an emergency problem, providing methods of taxation and distribution of moneys not based upon relief needs, but based upon other factors such as valuation of properties within the subdivisions, population, and ignoring the factor that there is no direct relation between taxable property within a subdivision and its possible relief needs.

NOT URBAN-RURAL PROBLEM

Let me disabuse your minds of one thing. This is not exclusively either an urban or rural problem. The highest per capita of relief needs in this state exists in three strictly rural counties today. It is a problem at large of industrial against agricultural communities, not urban and rural, where industry has been unable to employ those who had come into those communities for the purpose of being employed, as against those communities which are strictly, finally and absolutely rural. So that your problem is not, and the conflict in the Legislature is not, between cities and rural communities, but between industrial and agricultural communities which have a tremendous variation of problems.

Your committee has worked diligently. May I congratulate them and say that we have tried to afford them every cooperation it has been possible to afford them in helping to arrive at an answer to this most complex problem.

ADMINISTRATION WEAKNESSES

I want to discuss two things which are problems and which possibly some of you have not thought through clearly or been able to segregate from some of the general problems. One of the

first considerations is administration. On the state level we have a confusion of administration. We have an overlapping and duplication in part and a lag, a buck-passing, if you please, between the state departments of education, health, and public welfare, for which we are all to blame.

The problem of, let us say, the care of crippled children, with which many of you are familiar, by successive enactments of the General Assembly has been placed in three departments. The Department of Education provides certain educational facilities and assistance to subdivisions and school districts which are unable to finance their crippled children program. The Department of Health furnishes a service for the handicapped children. The Department of Public Welfare administers the major part of this program. Investigations as to the indigency and the need of these individuals is made by the Department of Public Welfare. We have a staff of nurses which, after commitments by the county, supervises the child who is indigent so that you have a confusion in that particular thing by itself.

SAME SITUATION LOCALLY

In many other of our levels, we have the same disorganized, disorderly process. If that is true on the state level, let us look for a minute at the local level. One talking about relief must necessarily bring in, of course, the other forms of public assistance, and before I leave this—I don't want to bore you with statistics—I want to tell you that the relief problem goes further than the enactment of a relief law and the financing thereof.

Last year, the year 1939, in Ohio, of the total expenditure for all forms of public assistance, which included WPA, CCC, NYA, direct relief, aid for the aged, aid for dependent children, aid for crippled children, excluding county homes, county children's homes, and institutional relief, 80 per cent was distributed and expended under the control of the Federal government, 15 per cent by the state, 5 per cent by the local subdivisions. I want you to know that, so that you can get the relationship of the financing problem to the administrative problem. And, ladies and gentlemen, the old axiom that where the money comes from, there the control resides, is just as true today as it was when it was written.

SOME TYPICAL EXAMPLES

The WPA is entirely independent of state control. It is administered by the Federal government. Aid for the aged is administered by the state and in each of the 88 counties so-called subdivisions are set up, staffed and controlled, the personnel provided entirely by the state. Relief this month is being administered in Ohio by 150 subdivisions. There are 88 counties and 110 cities and the law provides that the county may administer for the city by contract. In this par-

ticular area, the City of Cincinnati administers relief for all of Hamilton County and its suburbs; or two or more cities within the county may set up a joint administration within such cities, so that you have a confusion of administration.

In Aid for Dependent Children, the administration is in the hands of the juvenile judge. Direct relief is furnished under a mandate. Soldiers' relief is set up by a special Soldiers' Relief Commission appointed by a Common Pleas Court, separate and distinct, and financed entirely by the county.

Aid for the Blind is administered by the county commissioners. The state has nothing to do with it, the judge has nothing to do with it. I want to point out to you some of the complexity which exists, the ridiculous complexity, if you please, which must exist in the mind of the client who does not know whether he is eligible for one type or another type of relief.

NEED UNIFIED SUPERVISION

The difficulties of administration go back to the State Department on account of this complexity and this confusion of administrative authority in these various categories. It seems to me that one of our problems, which ought to be met, is the centralization and the correlation and the integration of authority in a unified body in a county, which is probably the logical unit for the administration of all types of public assistance. That is a step that is certainly needed.

We have already taken steps in our State Department to integrate our field staff so that no longer can a condition exist which does exist today, that on any given Monday morning 27 people can leave the Columbus office of the State Department of Public Welfare and come to Hamilton County and go to the courthouse on a legitimate mission.

It is perfectly absurd. It is a result of legislation which has been tacked on from time to time without any relation to previous legislation which might have existed. The ramifications, of course, of that are tremendous. The result of that is this, absurd as it is, that both on the state and county level we have set up administratively and financially a competitive system within our own service.

DIVISIONS IN COMPETITION

Those who are working in the field of crippled children or the field of aid for dependent children, importune the county officials to secure more money for their particular category. In some counties they have yielded to that importunity and have augmented appropriations over prior years for a particular category. Under our constitutional limitation on tax-raising ability, that money has to come by being taken from some other operation or function of the government.

So, we find within our own Department and locally, a competitive system of acquiring funds.

Let me call your attention to the tremendous demand upon us to pick up the lag, and the lag that has existed for years in the field of the care of the mentally ill, insane, feeble-minded. We have denied admission to over a thousand patients who have been committed to the state hospital for the insane, whom we are unable to admit and for which the state is paying an exorbitant price per day on account of the failure and lag over years. A superintendent of one of the state institutions housing epileptics has made the statement that if a duplicate of his institution were created and made available for the acceptance of patients tomorrow, it would be filled as fast as it was humanly possible to fill it.

We know that in the field of the feeble-minded we have the same problem. There is pressure from the courts to accept problem children, feeble-minded, subnormal children, mentally deficient, who have been social menaces. It isn't only in this particular field of relief; it is in the entire field which has to do with human welfare. So that we are confronted with first an attempt to properly apportion those resources which are available now and in the light of the valid need—always a valid need—secure additional resources and properly proportion them to the particular thing which is the most important, and which must be done. To do that requires the combined intelligent, unselfish, and best thinking of the brains of this state and nation. It isn't going to be done as a result of a pressure group of any kind.

I wanted to discuss that just briefly—some of the dangers of pressure attempts to secure funds for a particular thing. Some of the inequalities in the present law are the result of just that having been done, so that we have surely an obvious need for a simplification and a centralization of authority, local and state, on the administration of relief.

NO IDEAL PATTERN

This last relief bill for the first time placed the administration of relief in the Department of Public Welfare. It has always been administered before by a commission or by an administrator or by an ex-officio group. Gradually out of all of this experience, by trial and error—mostly error—we are arriving at some sort of a pattern. Unfortunately, there isn't any pattern in the United States which has been accepted as the best and final answer.

In the State of Pennsylvania, the state furnishes all the money for relief and other forms of public assistance. The subdivisions do not participate in the financing. The State of Indiana furnishes none of the money. The money is all

furnished by the local subdivisions. So that we have no generally accepted and approved pattern.

The State of New York reimburses the subdivisions to the extent of 40 percent upon their actual expenditures for the various types of public assistance and in some of the programs which are financed in part by the Federal Government, on account of the failure of the State of New York to comply with certain requirements, the Federal Government is not participating. That raises the question of administration, one to which I do not know the answer.

TWO DEFINITE RESPONSIBILITIES

You have two problems, as I see it, in the local administration of medical relief, as to what unit and by whom it shall be administered. The difficulty is that you have a social problem and you have a functional problem. The determination first has to be made by someone. By whom? Probably by the welfare worker in a subdivision, as to the indigency, as to the inability of this person to pay. The gradation of that goes on almost endlessly—those who can not pay anything; those who can pay only in part; those who can pay for certain services in part or in whole; those who can pay and are unwilling to pay, not only their doctor bills but other bills. The investigation as to the ability of a client to pay probably is not a function of the medical profession.

I think you see the point. After determination has been made as to the eligibility of a person to receive services which are to be paid out of public funds, that is where the social aspect ceases and the functional and medical aspect begins. After that is taken over by the medical profession then, of course, the social side drops out. I ask you this in all fairness: Is the medical profession through the state and other county and local Departments of Health, ready to take over that investigation as to the social status, the economic status of the individual for whom it is going to eventually furnish the service? Is that going to bring about another duplication and overlapping of function? I think it is a fair question and the exact answer I do not know. I know that thought has been given to it by many groups. It is very difficult to separate, to determine where one operation, one investigation, one function ceases and the other begins.

We have it now. We are conscious of it in our Bureau of Crippled Children in the Department of Public Welfare, so that the problem by itself is not new and there is some conflict—probably always will be some conflict—between the administrative unit which investigates the case and the professional unit which treats the case. That is something that out of all of the confusion of this problem some day you are all going to have to contribute your best judgment, unselfish best

judgment, with that of other groups who are honestly attempting to arrive at an answer to this problem.

MUST BE MET LOCALLY

The question of determination is mainly a local responsibility. No human device can be set up whereby a determination of eligibility and all of the elements which enter into eligibility and the carrying on of the necessary functions can be governed by somebody or a group of somebodies in Columbus, Ohio.

May I inject this note? One of the criticisms which we hear continuously is the developing of bureaus. I regret I am under that type of pressure from Washington. Do you know of any time, anywhere in the history of the world, where any administrative unit which had authority at any time conveyed upon it ever willingly, voluntarily relinquished it? A vested right becomes a vested right if it has only been vested for ten minutes. It is almost impossible to uproot it. We are under that type of thing from Washington. We want to be reasonably consistent—we don't want to impose it upon the local subdivisions.

After all, the responsibility for administration of medical relief, medical care, direct relief, work relief, must in the last analysis be in the hands of your local authorities. That means what? That there has to be a relationship developed between the medical profession and the city or county officials. As your chairman has already pointed out, in 52 counties, as I recall, there already has been worked out a relationship between your medical society and your county or city officials which is effective and practical and out of that experience as we develop new angles to this—and there are always new angles to it—I think eventually we will come to you for help and aid.

May I suggest that you continue your committee which has already worked so carefully and thoroughly upon this program and that you develop still further in the other counties and subdivisions of Ohio, medical groups from your association and local organizations to help work this out? This is a part of a general program. It isn't by itself the only angle to it. It is a component part.

PROBLEM OF FINANCING

The other major problem is financing. We have a hodgepodge of combined financing responsibility for the various programs of public assistance or general relief. Let me point out to you briefly that the WPA is financed entirely by the Federal government, aid for the aged by the state and Federal governments on a 50-50 basis; aid for dependent children by the county, the state, and the Federal government. Soldiers' relief is financed entirely by the county; home relief, direct relief by the county or city and reim-

bursed by the state in an amount not to exceed 50 per cent of the total expenditures.

Now, the Legislature did this: It fixed the maximum at 50 per cent which in general acceptance was assumed to be the minimum. The state may furnish 50 per cent of the money but the total appropriation for the biennium was fixed, effective July 1, 1939, at \$15,000,000, so that only that amount can be distributed. This statute set the maximum that could be expended and reimbursed by years and also by months, with the result that there has been only one month in which the state actually furnished 50 per cent. One month was just under 50 per cent, the first three months of this year it was better than 40 per cent. For the month of April, which distribution shortly is to be made, 34.5 per cent of the entire expenditure is to be furnished.

PENNSYLVANIA'S PLAN

There is nothing in the state law which gives the State Department the authority to fix aid. I want to discuss that briefly in closing: I referred to the State of Pennsylvania a few minutes ago as furnishing all the money which is expended for relief and other public assistance programs. They have developed a system over there whereby they withhold or set aside from their appropriated funds a fixed amount per client per month for medical purposes. That is on a varying scale. In the month of January, 1940, they set over 27 cents per month per client and withheld that and used that for the payment of medical services, nursing services, pharmaceuticals, and the result was that the amount per patient which was expended was a little over \$5.50. In other words, a good many of the clients received no medical assistance, but the withholding of that 27 cents per client made possible the pooling of expenditures.

Now in these last few months the state furnished by that method, and that amount goes down by months, 27 cents in January, 26 cents in February, 25 cents in March, and goes down as low as 18 cents. They still only meet 70 per cent of the bills for these services which I have just enumerated. It is estimated that if they would withhold or set over and pool 33 cents a month for each client, they could pay the medical costs, the medical care of persons in the State of Pennsylvania 100 per cent. That seems like a logical thing.

Let me show you how that might work in Ohio. Let me take one category—aid for the aged. The Federal government participates 50-50 in the distribution to the client. The law requires that all grants must be upon a budget basis. This budget sets over \$2 a month for medical care. Two dollars a month on the existing roll of old age pensions in Ohio would provide a sum of over \$3,000,000.

But, let me point out to you two things. If the state withholds that \$2 a month—assuming that \$1 a month is state money and \$1 is Federal money—the Federal government does not participate, because they only participate in the actual grants which go into the hands of the beneficiary. What happens to that \$2 a month which theoretically is set over for the benefit of the medical profession, the hospitals, the druggists and the nurses of this state? You know, and I know, that only a small part of that \$3,000,000 annually dribbles into the hands of the medical profession. It goes into the hands of the client. He may not need the services of a medical man for a year but at the end of the year, he might need a physician. Has he got that \$24? You answer that question. You know and I know he hasn't got it.

Now if there were some method by which, based on Pennsylvania's experience, we might withhold as little as 33 cents a month, the State of Ohio would expend less money and it would go to the service for which it was dedicated. The practical difficulty in the way is in attempting to withhold and cut the average beneficiary 33 cents a month. Another difficulty is non-participation by the Federal government in such a proposal.

LITTLE FLEXIBILITY

The last General Assembly ceased the earmarking of funds, except for the Highway Department. It appropriated for each department a maximum amount of money to be expended each year for certain purposes. There is no flexibility within that appropriation. I wanted you to get that point. A good many counties, with the flexibility of their own appropriations, have set over amounts for medical care of those who are on the rolls. The state has no flexibility in its appropriation. The appropriation is so much, \$1,600,000 annually for dependent children, to be distributed upon a mathematical basis without any relationship to need.

In one county of Ohio there is no waiting list of dependent children. There is an adequate family grant. The law requires the setting over of an amount equal to a levy of 15/100ths of a mill. The county this year having accumulated a balance went to the Common Pleas Court and asked for the turning over of these funds to the general revenue fund. Many counties do not have a sufficient amount to take care of the waiting list in this category.

Probably if some way could be worked out administratively so that we could withhold as I said, according to Pennsylvania figures, 33 cents per month per client in all of the categories, we could meet the cost of medical care, nursing care, surgical care and pharmaceuticals, nearly 100 per

cent. There as yet is no way by which that can be done.

WHAT ARE THE ANSWERS?

I have exhausted the time. As you know, I have obviously only touched the high spots of this very complex problem. It isn't only medical care. There is also the field of direct relief, work relief and all of the other categories. It isn't an easy question. You know and I know what some of the problems are. Most assuredly, I don't know what some of the answers are.

In summary, we have discussed, first, the necessity for the clarification and the simplification of administrative structures, and secondly, financing. What the answer to the latter is, I don't know. Surely some time we are going to reach the limit of the ability of the American taxpayer to pay. We may have reached it now. There has got to be some relationship between expenditures and resources. In Ohio last year over \$1,000,000 a day was expended for some type of public assistance. Ten years ago we had no such problem. That money has to come from some place and there has got to be some relationship between how much we can afford to do and how much we can afford not to do. Where that line is, I don't know.

Question—How far ahead can our county authorities estimate the amount of money they are going to have to spend for medical relief and is it legal for them to set up a definite budget to operate if it is not sufficient to pay the amount originally designated?

Mr. Sherwood—It is a fair question. The law does not fix any percentage for direct relief, work relief, or medical relief. Your county authorities, your county commissioners, have the legal right to set over an amount for medical relief. They can't establish a budget for over one year because their annual appropriation only extends for one year.

Question—Is it an annual appropriation?

Mr. Sherwood—Yes, an annual appropriation. The resolution can be amended from time to time. May I say this, which I failed to say? An organized group of intelligent persons of professional training and background and experience like yours is much more cohesive and coherent than a group of clients on relief. Such a group is able to go to a board of county commissioners ordinarily with a more intelligent presentation.

Let me point out another thing. Statistics by themselves are not always accurate. I intended to include this in my talk. We made a survey of 14 counties, all of which are rural or semi-rural. We found in one of those counties that 24.56 per cent of the entire expenditure for relief was for medical relief, and in an adjoining county the expenditure was .22 per cent. That is accurate statistically. But our statistics also show that

the City of Cleveland, which we reimburse for expenditures for relief, including medical relief, doesn't spend any money for medical relief. Until you know that the county administers the medical care for the City of Cleveland you would say that the city was spending nothing. The fact of the matter is they spend probably as much or more than they do in any other county of the state, so that statistics by themselves are very misleading.

In setting up these budgets, the county commissioners have the discretion; the state does not. There is nothing in the law which gives us authority to control the percentage of our relief funds for any of the three subdivisions—work relief, direct relief, or medical relief.

Question—How long has the State of Pennsylvania been setting aside this certain sum per capita?

Mr. Sherwood—Since they started their entire appropriation for relief. In other words, they have been working this out from time to time. We have the figures for 1939 complete and we have just recently accumulated those for the first three months of this year, but I think it was part of the program from the beginning when the state took over the entire financing of relief.

Ohio Physicians Invited

Members of the Ohio State Medical Association are cordially invited to attend the joint annual meeting of the West Virginia and Virginia State Medical Societies at The Greenbrier, White Sulphur Springs, W. Va., Monday, Tuesday and Wednesday, July 29-31. Guest speakers of prominence will present papers at the morning sessions, and round-table discussions will be held each afternoon. There will be an excellent display of scientific and commercial exhibits. Details of the meeting can be obtained by writing either Agnes V. Edwards, Executive Secretary, Medical Society of Virginia, Richmond, Va., or Joe W. Savage, Executive Secretary, West Virginia State Medical Association, Charleston, W. Va.

Akron Postgraduate Day, October 23

The Ninth Postgraduate Day of the Summit County Medical Society will be held at Akron, Wednesday, October 23. Speakers will be the following members of the faculty of the University of Michigan Medical School, Ann Arbor: Dr. F. A. Collier, professor of surgery and chief of the department of surgery; Dr. J. M. Sheldon, assistant professor of internal medicine; Dr. John Alexander, professor of surgery and director of the division of thoracic surgery; Dr. C. C. Sturgis, professor of internal medicine and chief of the department of internal medicine. Subjects to be discussed and other details of the meeting will be announced later.

Do You Know - - -

Dr. Waldo E. Nelson, associate professor of pediatrics, University of Cincinnati College of Medicine, has resigned, effective September 1, to become head of the department of pediatrics, Temple University School of Medicine, Philadelphia, Pa.

* * *

Dr. Edward E. Woldman, Cleveland, is the new president of the American Physicians' Art Association. He was elected at the Association's recent annual meeting in New York City.

* * *

The Old Autopsy House at Philadelphia General Hospital has been restored and was dedicated June 8 as the Osler Memorial Building. This occasion marked the premier showing of the painting "Osler at Old Blockley" by Dean Cornwell.

* * *

According to provisional tabulations on birth statistics of the Bureau of the Census, there were 2,262,726 reported births in the United States in 1939, a decrease of 24,236 from the 2,286,962 births reported for 1938, and a corresponding decrease in the birth rate from 17.6 to 17.4 per 1,000 estimated population.

* * *

Dr. Frederick C. Waite, Cleveland, professor of histology and embryology at Western Reserve University College of Medicine, retired June 1, after 48 years as a teacher, 42 of them at Western Reserve.

* * *

Dr. Philip Zenner, emeritus professor of neurology at the University of Cincinnati College of Medicine, and the first physician in Cincinnati to specialize in nervous and mental diseases, was guest of honor at the annual reunion banquet of the Alumni Association of the College, June 6.

* * *

An LL.D degree was conferred on Dr. John A. Riebel, Sr., Columbus, at the recent commencement of Capital University, Columbus.

* * *

Cleveland had one of the nation's lowest typhoid fever rates for major cities last year, the rate being 0.5 deaths per 100,000 population. The rate for the nation's 93 largest cities was 0.67, and the number of deaths was 291.

* * *

Dr. H. T. Phillips, Athens, member of the Ohio Senate from the 9th-14th Senatorial District, was a medical officer at the Republican National Convention in Philadelphia.

Dr. John M. McCleery, New Concord, college physician and professor of biology at Muskingum College, is the new president of the Ohio Student Health Association.

* * *

The Ohio Alpha chapter of Alpha Epsilon Delta, national honorary pre-medical fraternity was recently installed at Ohio State University.

* * *

Practicing medicine in the Lorain Medical Building, Cleveland, are a daughter, three sons and a son-in-law of the founder of the building, the late Dr. Emory Dial. They are: Dr. Elizabeth Dial Spreng, the daughter; Dr. Dwight S. Spreng, her husband, and three sons, Dr. Donald E. Dial, Dr. Ralph S. Dial and Dr. Robert J. Dial.

* * *

Columbus osteopaths have acquired control of Doctors' Hospital, a 35-bed institution, formerly known as "Radium Hospital".

* * *

The United States infant-mortality rate (number of deaths under 1 year of age per 1,000 live births) was 48.0 in 1939, the lowest in the history of the birth registration area established by the Bureau of Census in 1915. The rate for Ohio was 42.7.

* * *

Oscar Hanson, alias W. C. Curran, etc., Fort Worth, Texas, was recently apprehended at East Lansing, Michigan, convicted and placed in prison for several swindles of physicians. His racket was to induce oculists to examine his eyes, give a check in payment, asking for the difference in cash between the amount of the check and the price of the glasses. The checks invariably bounced back. He never returned for his glasses. Among his victims were several Ohioans.

* * *

Dr. Clarence A. Mills, professor of experimental medicine, University of Cincinnati College of Medicine, recently addressed the Medical Association of the Isthmian Canal Zone on "Climatic Influences over Combustion Level and Resistance to Infection".

* * *

Among the speakers at the second annual session of the American Association for the Surgery of Trauma, June 7-8 at Atlantic City, were: Dr. Donald M. Glover, Cleveland, and Dr. Louis G. Herrmann, Cincinnati. Dr. Glover spoke on "A Summary of Fifteen Years' Experience with the Tannic Acid Treatment", and Dr. Herrmann discussed "Diagnosis and Treatment of Post-Traumatic Osteoporosis".

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Several recent inquiries by members of the State Headquarters Office indicate that some members are not familiar with certain provisions of Ohio's sales tax and "use tax" laws as they affect physicians, despite the fact that numerous reminders have been published from time to time in *The Journal*.

Some Helpful Advice to Physicians About Sales Tax Laws

This brief analysis of pertinent provisions of both laws is offered as an additional reminder. Physicians should comply with the laws to safeguard themselves against the assessment of fines after their books have been checked by inspectors of the State Tax Commission.

Sales Tax Ruling 33 of the Tax Commission reads as follows:

"Physicians and dentists are consumers of the various items of tangible personal property which they use in the rendition of their professional services and the tax will apply upon their purchase of all items of tangible personal property, including equipment.

"The tax does not apply to the fee for professional services rendered by physicians and dentists. If physicians and dentists apart from their professional services are engaged in selling to the public such articles as medical supplies, mouth washes, dentifrices and the like, they are vendors and must procure a vendor's license and collect the tax on such sales."

In other words, when a physician purchases drugs, supplies, instruments, etc., for use in his practice, he must pay the Ohio sales tax on such articles to the person or firm from which they are purchased.

If a physician is engaged in selling drugs, supplies, etc., to patients, making a separate charge for such articles aside from a charge for professional services, he becomes a vendor, must have a vendor's license, collect the sales tax on such articles from the patient, and issue a sales tax stamp when the tax is collected. If no charge is made for drugs or articles dispensed, the charge to the patient being solely for professional services, the physician is not a vendor and does not need to collect the sales tax.

Sales Tax Ruling 19 applies to the sale of glasses by oculists, opticians and optometrists. It reads as follows:

"An optician, oculist, or optometrist engaged in selling eye glasses in connection with his services is a vendor, and must procure a vendor's license and collect the tax imposed by Section 5546-2 of the General Code.

"The tax basis will be the selling price of the

eye glasses without any deduction being made from that price as charged for the services which enter into the making of the finished product.

"In the event charges for professional services or examinations which are rendered apart from the making of said eye glasses are itemized separately, the tax will be computed thereon."

The meaning of this ruling is that when a physician charges a lump sum for glasses, including professional services and the merchandise, he must collect the sales tax on the total bill. However, when a physician renders separate bills—one for professional services and one for the merchandise—or renders one bill on which the charge for professional services and the charge for merchandise are carried separately, the physician is obliged to collect the sales tax only on the charge made for the merchandise (eye glasses). Itemizing of the bills must be made when the bill is rendered to the patient. It cannot be done just as a book-keeping procedure in the physician's office.

Ohio's "use tax" applies to the use of property in this state the sale of which would be subject to sales tax had there been a purchase within this state. Responsibility for payment of the sales tax on merchandise purchased outside of Ohio is placed on the consumer (the purchaser) and he is subject to fine if the tax is not paid. If the firm from which the out-of-state purchase is made has a certificate from the Tax Commission to collect the sales tax, the sales tax may be paid by the consumer to the seller in the usual manner. If the seller does not hold such a certificate and makes no effort to collect the sales tax, the responsibility for reporting the purchase and paying the tax on the merchandise to the Tax Commission rests on the purchaser. A penalty for not doing so is provided in the law.

In other words, when a physician purchases drugs, supplies, etc., from firms which are not located in Ohio, he is legally responsible to see that a sales tax is paid on such merchandise. Many out-of-state firms with which physicians deal have obtained a certificate from the Tax Commission authorizing them to collect the sales tax from physicians in the usual manner, and they do so. Some firms have not made such arrangements and make no effort to collect the sales tax from physicians. In this event, the physician making a purchase is legally obligated to report each purchase to the Tax Commission and pay the sales tax direct to the Commission. If he does not, and this is discovered by tax

inspectors, the physician is liable to a fine in addition to the taxes due.

The primary purpose of the "use tax" is to protect Ohio firms from discrimination and unfair competition on the part of out-of-state companies. It is a vehicle for application of the Ohio retail sales tax not only to articles purchased in Ohio but also to articles purchased in interstate commerce.

During recent months, tax inspectors have been calling at the offices of physicians to ascertain if the sales and "use" tax laws are being complied with. All physicians should familiarize themselves with these laws and comply with them so as to avoid penalties which may be imposed by tax authorities.

With the stake you have in your profession, ask yourself whether you are giving that active support to your Society which the exigencies of today require.—Burton P. Corbus, M.D., President, Michigan State Medical Society.

To say that the House of Delegates of the American Medical Association used good judgment in electing Dr. Parke G. Smith, Cincinnati, immediate past-

A.M.A. Delegates Use Good Judgment in Election of Dr. Smith

president of the Ohio State Medical Association, as vice-president for the year 1940-41, is entirely too mild a statement. In our opinion, there is no physician who possesses more or better qualifications for that high office. The election of Dr. Smith is a high compliment to him personally, as well as a tribute to the medical profession of Ohio and the Ohio State Medical Association. Those who supported his nomination were not unaware of his personal qualifications and of the fact that he had just completed a most successful term as president of the Ohio State Medical Association during which he displayed the attributes of strong leadership and won the respect and confidence of his Ohio colleagues.

As vice-president of the A.M.A., Dr. Smith will have additional opportunities to work effectively, as he has in the past, for the purposes and programs of medical organization. He will add strength to the official family of the American Medical Association. His energy, enthusiasm and sound judgment are assets which will produce dividends for the national organization.

The organization can face the future with continued confidence, knowing that it has selected a well-qualified, worthy successor in event fate should cause any vacancy in either of the higher offices of the association.

A judgment which clarifies Section 1288 of the General Code relating to the limitations placed on osteopathic practitioners and which will be of material assistance to the

Important Decision Made By Court In Osteopathic Case

State Medical Board in enforcing that portion of the Medical Practice Act was rendered recently in the Lake County Common Pleas Court in the case of The State Medical Board vs. Walter B. Stribley, Painesville, osteopath.

In March, 1939, the State Medical Board suspended the certificate of Stribley to practice osteopathy and surgery in Ohio for one year after finding him guilty, pursuant to a hearing in the Board's office, of having repeatedly and wilfully used and prescribed drugs in violation of the statutes. The drugs listed in the charges were: Sodium bromide, nembutal, codeine sulphate, sedaphon, chloral hydrate, terpin hydrate, heroin, tincture of digitalis, hematinic plastules of liver, ferric iron, and sodium salicylate.

Stribley appealed to the Common Pleas Court of Lake County, claiming that the drugs mentioned in the charges against him were anesthetics or antiseptics which under the provisions of Section 1288 an osteopath is permitted to use or prescribe if done in connection with the practice of osteopathy or surgery.

By agreement of counsel for both sides, the deposition of Dr. Torald Sollmann, dean of the College of Medicine, Western Reserve University, was taken, to be read in evidence on behalf of the State Medical Board at the trial of the case. After the taking of Dr. Sollmann's deposition in which he testified that the medicants used or prescribed by Stribley are drugs, not anesthetics or antiseptics, Stribley pleaded guilty to the charges and findings of the State Medical Board.

In dismissing Stribley's appeal, Judge W. S. Slocum of the Lake County Common Pleas Court, filed the following journal entry:

"This cause came on this day to be heard and was submitted to the court on the transcript and finding of the plaintiff-appellee, the State Medical Board, the pleadings filed in this court and the evidence; upon consideration whereof the court finds that the defendant-appellant has violated the regulations placed upon the practice of osteopathy and surgery by the statutes of Ohio, and the appeal of the defendant is hereby dismissed."

The significance of the judgment in this case is two-fold:

First, it establishes a precedent for the making of a finding by the common pleas court upon the transcript of the original hearing before the State Medical Board—a procedure which will save considerable time and expense in disposing of cases carried to the courts on appeal.

Second, it establishes by court decision that

agencies such as those listed above are drugs, not anesthetics or antiseptics, and their use or the prescribing of them by an osteopathic practitioner constitutes a violation of the limitations placed on osteopaths by Ohio statutes.

In recent years there has never been a time when scientific medicine has so much needed the support of organized medicine than at the very present.—California and Western Medicine.

About 300 Ohioans, mostly children, will be seriously injured in fireworks accidents during the coming Fourth of July celebration if Ohio's

How Family Doctor Can Help Prevent July 4 Tragedies

record for the last several years is maintained. In 1939 the total number of fireworks injuries in the state was 337, according to figures gathered by the American Medical Association. Of that number eight persons suffered injuries to their eyes and three lost the sight of one or both eyes. The A.M.A. statistics, of course, do not include the many minor burns and abrasions which were not brought to hospitals or physicians' offices for treatment. Nor does its report take into account the tremendous property damage from fireworks throughout the state.

This toll seems like an unduly heavy price to pay for a noisy and spectacular commemoration of America's national independence. Since there is no Ohio law banning the sale of fireworks, and since city ordinances prohibiting their use are impossible of complete enforcement from a practical standpoint, the only immediate method of striking to reduce the toll is through education. And this is where the family doctor comes in.

Physicians, acting as counselors for their patients' welfare, are often in a position to remind parents of the dangers of allowing their children to use fireworks. A word to a thoughtful father or mother along about July 1 may prevent a nasty accident. The fact that the two main causes of death from pyrotechnics last year were body burns suffered by little girls whose flimsy dresses caught fire and the mutilations of boys and men who were experimenting with home-made explosives is in itself enough to make most persons think twice before permitting their youngsters to handle fireworks. Also, parents should be warned of the need for prompt medical care should fireworks accidents happen.

The giving of this kind of advice to patients is one of the practical ways in which the physician can practice preventive medicine.

Action of the House of Delegates of the American Medical Association at the recent New York session of the association in establishing a Com-

Preparedness Program of A.M.A. Should Have

Prompt, Active Support

mittee on Medical Preparedness, endorsing a tentative plan for mobilization of the profession on a volunteer basis in case of emergency, and pledging the support of the profession to national preparedness against aggression, should have the complete approval of every member of the medical profession.

This action exemplifies the patriotic tradition of the medical profession. It reveals again that the medical profession is not factional, political or provincial in its activities but is guided in its efforts by a sincere desire to shoulder its full responsibility in programs of benefit to the people of the United States.

In offering all of its facilities to the government as a contribution toward the national preparedness program, the American Medical Association has assumed a gigantic responsibility. Organization of the profession on a volunteer basis for service in event of a national emergency will be a huge undertaking.

The American Medical Association and its special committee on preparedness will need the active and united support of the medical profession of the country in this great program. Every unit of medical organization will be asked to take some part. Having full confidence in the Ohio profession and in the efficiency of the State Association and its component county societies, we feel safe in saying that Ohio stands willing and ready to offer the A.M.A. full cooperation and active assistance.

More friends—or enemies—are made at the admitting desk than at any other spot in the hospital.—The Modern Hospital.

A rather dismal picture regarding the relief problem of the country is painted by *The United States News*, reporter of affairs at Washington.

New Attitude About Relief Is Challenge to Medical Societies

It presents figures on which the following statements are based: Relief rolls stubbornly refused to drop much below the 18,000,000 mark. Federal relief policies are shifting from an emergency to a permanent basis. Admission is made by officials that they are no nearer a solution now than in 1933. One out of every seven citizens is receiving some sort of government relief. There appears to be little hope of absorbing many more persons in private

industry. Aid for dependent aged and children is increasing.

For the medical profession this situation contains a warning. Through its organizations it must play an even more aggressive role in policy-making and administration in those phases of relief activities which pertain to medical care, than they have in the past. This applies to the State Association and all county medical societies. In the past several years, the State Association has been aggressive but some county medical societies have been too passive, excusing themselves with the argument that the relief situation is but a temporary thing and will disappear at some future date. Perhaps it will—we hope it will. But, we doubt if it will. Therefore, every county medical society must make its influence felt with relief authorities and through such contacts see that a proper medical program for the poor of the community is maintained. Obviously, a medical program cannot be adequate or properly administered unless it provides for the reimbursement of physicians for services rendered and for medical counsel on administrative details. The county medical society should insist on these important factors.

Public health is a vital part of the national defense program, Surgeon General Parran is quoted as having said in Washington. Righto, Doctor! But, like other defense programs it can be ruined by being made a political football.

Whether or not the Congress will take final action on the proposed Federal hospital building program provided for in revised Senate Bill 3230 at this session was doubtful as this issue of *The Journal* went to press. At present members of Congress are divided on the issue as to whether Congress should adjourn or recess because of the international crisis. Also, the war and the proposed preparedness program have subordinated other questions, leaving doubt as to whether Congress will act on ordinary proposals.

The hospital bill is now before the Committee on Interstate Commerce of the House of Representatives, having passed the Senate weeks ago.

The bill should be amended in these respects before it is enacted—there is grave doubt as to whether it is necessary in any form. Ohio congressmen have been informed of the views of the Ohio State Medical Association on the measure and urged to support at least three changes in the bill.

First, the present definition of the term "hospital" found in Section 18 of the proposal is unsatisfactory. Probably there is no need for a definition at all as the meaning of the word "hospital"

is clear. However, if a definition is deemed necessary, the words "health, diagnostic and treatment centers" should be eliminated from the definition to prevent the expenditure of Federal funds for clinics and treatment centers engaged in the practice of medicine instead of for hospital beds and facilities, the underlying purpose of the proposal.

Second, the Advisory Council provided for should be given broader powers, extending throughout the life of the building program and not just during the first year. Also, modification should be made in the method of selecting the members of that council. Power of appointment should be lodged in someone other than the Surgeon General of the U. S. Public Health Service. That official as administrative officer of the hospital program would be subject to suggestions and recommendations of the council and therefore should not be given the right to dictate the personnel of the council.

Third, a provision incorporated by the Senate providing for osteopathic representation on the Advisory Council, should be deleted. Only fully qualified persons should be named to the Advisory Council. Osteopaths, because of their inferior training and experience, do not meet the standards which are essential to give that body the status it should have.

Ohio physicians should make known their views on this proposal to Ohio's congressmen.

Darke County Physicians Honored

Approximately 225 representative citizens of Darke County joined with lay members of the Board of Trustees of Wayne Hospital, Greenville, in a testimonial dinner to the members of the Darke County Medical Society at the Greenville Elks' Home, Monday evening, May 27. Special tribute was paid to the memory of four deceased physicians, Dr. Will Matchette, Dr. Andrew Snorf, Dr. E. G. Husted and Dr. S. A. Hawes, all of Greenville, whose efforts were mainly responsible for the founding of the hospital in 1921. The principal address was given by Dr. R. C. Buerki, Chicago, Ill., director of study of the Commission on Graduate Education, whose subject was: "The Hospital as a Community Asset". The Rev. Father John A. Gnau, representing lay members of the hospital board, eulogized the many services rendered to the public by members of the medical society. In response, Dr. M. M. Kane, Greenville, president of the society, extended the appreciation of the medical profession for the cooperation it received and in particular for the fine gesture of friendship and good will displayed by the testimonial dinner. Other speakers included Dr. W. C. Gutermuth, Versailles, who discussed plans for a \$60,000 addition to the hospital, construction to begin soon.

IRON IN HUMAN NUTRITION

● Like certain other essential minerals, iron performs several vital physiologic functions in the human body. Certainly the best-known, as well as a most important role of iron, is in the formation of hemoglobin, the blood constituent which effects oxygen transport.

The destruction and regeneration of hemoglobin is a continuous process. It has been estimated that daily the adult human destroys and regenerates 29 grams of hemoglobin, an amount containing about 90 milligrams of iron (1). It is a fortunate circumstance that most of this iron is conserved for re-use. However, iron lost in the regeneration process must be supplied by foods or from body stores of this element made possible by a liberal supply of iron in the diet.

Dietary iron deficiency may produce a definite type of anemia due to inability of the organism to elaborate an adequate amount of hemoglobin. This kind of anemia is not uncommon in infants, or in older individuals during periods in the life cycle in which body demands for iron are unusually heavy. Balance studies have permitted the following estimates of daily iron requirements for normal persons (2):

Infant (per pound body weight)	0.36 mg.
Preschool child (per pound body weight)	0.27 mg.

Boys and girls, 5-11 years	9-11 mg.
Boys over 11 years	13 mg.
Girls over 11 years	13-15 mg.
Man	12-15 mg.
Woman before menopause	17 mg.
Pregnant woman	20 mg.
Nursing woman	17-20 mg.
Woman after menopause	12-15 mg.

In securing these necessary daily supplies of dietary iron, unfortunately we cannot be solely guided by the total iron content of the diet. It should be remembered that probably not more than about 60 per cent of the total iron present in a mixed diet can be diverted to the body's uses (2), even though with individual foods this percentage of "ionogenic iron" may be quite high (3). Consequently, in practical nutrition, to obtain an adequate intake of this essential mineral about twice the estimated daily requirement of iron should be received by way of the daily ration.

By intelligent diet planning, the normal individual can readily attain an optimal supply of iron. Foods rich in content of this mineral (2) should be given a prominent place in the ration. It is perhaps needless to state that the canned varieties of these foods will also prove both valuable and convenient in the attainment of the daily amounts of this essential element now considered to be necessary for complete nutrition.

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(3) 1940. J. Nutrition 19, 449.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-first in a series, which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Buckeye News Notes

Ashtabula—Dr. A. M. Mills is a member of the board of directors of the local Chamber of Commerce.

Canton—Dr. R. K. Ramsayer and Dr. Winfred M. Dowlin tied for low gross with scores of 85 at the annual golf tournament of the Stark County Medical Society at the Alliance Country Club.

Centerburg—Dr. Samuel O. Gantt recently celebrated his fiftieth year as a physician.

Cincinnati—Dr. Emil Swepston spoke on "Socialized Medicine," at a meeting of the Forum Club.

Cincinnati—Dr. Paul Hoxworth read a paper on "Blood Bank," at a meeting of the Medical Women's Club of Cincinnati.

Cleveland—New chief of the surgical staff at Mount Sinai Hospital is Dr. Abraham Strauss. He succeeds the late Dr. M. E. Bland.

Columbiana—The attitude of the medical profession to a system of socialized medicine was discussed by Dr. Lee Bookwalter at a meeting of the Rotary Club.

Columbus—Dr. Clyde W. Dawson, associated with the Medical Department of the State Industrial Commission as consultant in orthopedics, has been admitted by examination to the American Board of Orthopedic Surgery, Inc.

Columbus—"A Doctor Looks at Alcohol and Accidents", was the subject of a talk made by Dr. Harry L. Reinhart at a meeting of the Exchange Club.

Dover—New staff officers of Union Hospital are: Dr. D. H. Downey, Dover, president; Dr. C. M. Dougherty, New Philadelphia, vice-president; Dr. W. R. Stager, Dover, secretary-treasurer. Dr. Burrell Russell, New Philadelphia, and Dr. Stager were elected to the liaison committee.

Dunkirk—Dr. C. R. Blosser has been elected to a five-year term on the Hardin County Board of Health.

Dayton—Dr. Walter M. Simpson has been promoted to the rank of commander in the medical corps of the United States Naval Reserve.

Fostoria—Dr. John H. Norris, who has been actively engaged in the practice of medicine for 63 years, was honored by his fellow members of the Exchange Club on his 85th birthday anniversary.

Fremont—Dr. C. I. Kuntz, Fifth District Commander of the American Legion, gave the principal address at the Memorial Day services.

Galion—Plans are well under way for the new 30-bed city hospital, which is to be a two-story brick structure.

Geneva—Dr. F. C. Smith has been elected to a

five-year term on the Ashtabula County Board of Health.

Gallipolis—Dr. Charles E. Holzer is a vice-president of the recently organized conservation society known as "Friends of the Land".

Gomer—Dr. O. S. Robuck has been appointed to represent Allen County on the board of trustees of the Lima District Tuberculosis Hospital.

Kent—A talk on "Social Diseases", was made by Dr. John M. Painter at a meeting of the Methodist Men's Club.

London—Dr. Frank R. Neff is the new health commissioner of Madison County.

Mansfield—Dr. Mabel Emery spoke on "Women in Medicine", at a meeting of the Woman's Auxiliary of the Richland County Medical Society.

Mansfield—Dr. Carl R. Damron spoke on "Socialized Medicine" at a meeting of the Council of the Parents and Teacher's Association.

Massillon—Dr. J. J. South has been named chief of staff of City Hospital, succeeding the late Dr. L. B. Zintmaster.

Middletown—"Midway," was the subject of an address made by Dr. Mildred White Gardiner at a meeting of the Highland Circle of the Mothers' Study League.

Middletown—Officers of the local hospital staff are: Dr. W. A. Reese, president; Dr. R. A. Hill, vice-president, and Dr. Frank C. O'Neill, secretary-treasurer.

New Lexington—Dr. J. G. McDougal has been practicing medicine here for 56 years.

Norwood—Dr. Wm. H. Rohdenburg, member of the management committee of the local Y. M. C. A., was the speaker at a meeting of the Y Men's Club.

Ravenna—The dangers of a system of socialized medicine were pointed out by Dr. Paul Zinkhan at a meeting of the local Grange.

Steubenville—Dr. Dominic Macedonia has been appointed to the local board of health for a five-year term.

Toledo—Dr. E. J. McCormick was a speaker on Toledo's New Citizens' Day program.

Toledo—Dr. Thomas F. Heatley, chief of staff of Mercy Hospital, pointed out the dangers of the Wagner Health Bill in an address to the women of the hospital guild.

Wilmington—Dr. R. W. DeCrow, formerly with the State Department of Health, has been appointed health commissioner of Clinton County, for a term ending January 1, 1941.

Youngstown—Dr. E. F. Wenaas spoke before the hygiene classes of Youngstown College on "The Physiology and Care of the Eyes". ■

Karo in Infant Diarrhea

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State Medical Board Examinations Taken by 394 Applicants During Week of June 3; Results To Be Announced July 2

THE semi-annual examinations of the State Medical Board at Columbus, June 3-6, were taken by 394 applicants, of whom 260 sought licenses to practice medicine and surgery.

There were 31 applicants for osteopathic licenses. Other applicants included 12 chiropractors; 1 naprapath, 28 mechano-therapists, 23 masseurs, 31 chiropodists and 8 cosmetic therapists.

Of the 260 medical students who took the examinations, 77 were from Ohio State University College of Medicine; 75, University of Cincinnati College of Medicine; 58, Western Reserve University School of Medicine; 32, out-of-state medical schools, and 18 from foreign schools. In the latter group were three who had failed in previous examinations and one American citizen.

Results of the examinations will be announced at a meeting of the State Medical Board in Columbus, Tuesday, July 2.

Questions asked those who took the medical and surgical examinations were as follows:

ANATOMY

1. Describe the reflections of the pleura.
2. Describe the great saphenous vein.
3. Describe the spleen, including its relations and blood supply.
4. Make a cross section drawing of the forearm $2\frac{1}{2}$ cm. above the distal end of the ulna.
5. Make a schematic drawing of the aorta showing its divisions and all branches.

PHYSIOLOGY

1. What is the physiological significance of the elasticity of the arteries?
2. Discuss the chemical control of breathing.
3. State and explain how the vision of man is affected by:
 - (a) section of the left optic nerve;
 - (b) destruction or removal of the left occipital lobe.
4. Describe and account for the physiological effects produced by an intravenous injection of an amount of epinephrine sufficient to double the mean arterial pressure.
5. Discuss the control of the cerebral circulation.
6. What effects have each of the following on the filling of the right auricle:
 - (a) deep inspiration;
 - (b) stimulation of the peripheral end of a cut splanchnic nerve.
7. Discuss the physiological basis of thirst.
8. State and explain the immediate and delayed effects of a severe hemorrhage on the quantity, composition and physical characteristics of the blood.
9. Describe the mechanisms which inhibit gastro-intestinal activities during strong emotional excitement.
10. How may functional alterations in the renal blood vessels change the volume and composition of urine?

CHEMISTRY

1. Discuss the sources of urea in the blood and give the normal range.
2. Give the chemistry of the pancreatic juice. How does it act upon proteins, carbohydrates and fats?
3. Discuss the metabolism of calcium.
4. What is meant by fatty, amino and hydroxyl acids?
5. What are the legal restrictions in the performance of an autopsy in a case of suspected poisoning? How determine the presence of (a) arsenic; (b) bichloride of mercury.

BACTERIOLOGY, PATHOLOGY AND PUBLIC HEALTH

1. What is meant by anerobic bacteria? Name and describe 3 pathogenic forms.
2. By what laboratory procedures would you make a diagnosis of pneumococcus pneumonia, typhoid fever and tuberculosis of the kidney.
3. Name two virus diseases affecting the central nervous

system and give procedures to establish the diagnosis of each.

4. What laboratory aids would you seek to establish a diagnosis of cholelithiasis?
5. Give the etiology and pathology of aneurysm of the arch of the aorta.
6. In a case of bichloride of mercury poisoning, discuss the urinary findings in life and the kidney conditions at autopsy—gross and microscopic.
7. Define: (a) thrombus; (b) embolus; (c) infarct. Describe the pathologic results of a pulmonary embolism.
8. What would you advise when a patient consults you (a) having been exposed to smallpox 24 hours previously; (b) having a penetrating wound of hand or foot contaminated by garden soil; (c) having been bitten by a dog and the animal captured; and (d) an individual suspected of being a typhoid carrier?
9. What preventive measures may be used in an outbreak of whooping cough in a community? What age patients are most vulnerable, and what are the chief dangers of the disease?
10. Discuss the importance of the mantoux test for tuberculosis, its significance and advisable "follow up" procedures.

DIAGNOSIS

1. Name three conditions that would produce free fluid in abdominal cavity. Give physical signs of ascites.
2. Give diagnostic signs of Banti's symptom complex.
3. What conditions may produce painless jaundice.
4. Differentiate leukemias.
5. Differentiate bronchiectasis; bronchospasm and unresolved lobar pneumonia.
6. What conditions may produce blood in urine?
7. Give symptoms and signs of toxic adenoma.
8. Differentiate undulant fever; typhoid fever and acute rheumatic fever.
9. What glandular dysfunction may produce bone rarification?
10. Give physical findings in pericardial effusion (500 cc. fluid).

MATERIA MEDICA

1. What is a diuretic?
 - (a) Name three potent diuretics.
 - (b) Give dose of each for an adult.
 - (c) Give mode of action of each.
2. Name two drugs you would use in treatment of each of the following and give dose of each:
 - (a) bronchial asthma
 - (b) streptococcus infection
 - (c) lobar pneumonia
 - (d) coronary occlusion
 - (e) early syphilis
3. Name three modern genito-urinary antiseptics; give average adult dose of each.
4. What antidotes would you use in treating poisoning from the following drugs:
 - (a) sulfapyridine
 - (b) strychnine
 - (c) barbitol
 - (d) cinchona
 - (e) diphtheria antitoxin
5. Name and give dose of the principal alkaloid of
 - (a) cinchona
 - (b) belladonna
 - (c) opium
 - (d) nux vomica
 - (e) physostigma
6. What are the sources of salicylic acid? Discuss use and dosage of sodium salicylate.
7. What are the uses of bromides? What untoward results of bromides must be guarded against?
8. Give use and dose of each:
 - (a) spirit of glonoin
 - (b) pheno-barbital
 - (c) ammonium chloride
 - (d) paraldehyde
 - (e) mild mercurous chloride
9. Define and give example of:
 - (a) antipyretic
 - (b) incompatibility
 - (c) Synergistic
 - (d) emmenagogue
 - (e) anthelmintic
10. Name an animal alkaloid, giving official preparation.

PRACTICE

1. Describe the clinical picture of chronic heart failure. Discuss the more probable underlying causative factors in the age periods
 - (a) before 12
 - (b) between 25 and 35 years
 - (c) 45 years and after
2. Discuss the indications and procedure in
 - (a) slow digitalization
 - (b) rapid digitalization
3. Give the indications, hoped for effects and method of producing lung collapse in pulmonary tuberculosis.
4. Name three conditions associated with splenomegaly and describe the blood picture of each.
5. Discuss tetany, giving etiology symptoms and treatment.

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6. Give the common causes, symptoms and treatment of acute gastritis in
 - (a) a child of 7 years
 - (b) an adult
7. Describe a typically moderately severe case of scarlatina; name two complications which may occur with symptoms indicating their occurrence.
8. Describe the gait respectively of
 - (a) tabes dorsalis
 - (b) hemiplegia (partial recovery)
 - (c) paralysis agitans
 State the general locality of the neurologic area involved.
9. Discuss epidemic encephalitis, symptoms, prognosis and treatment.
10. Discuss the common neurologic sequences of chronic alcoholism.

SURGERY

1. Give the differential diagnosis of chronic ulcerative lesions of the mouth.
2. Discuss the treatment of septicemia following a streptococcal infection of the hand.
3. Give the differential diagnosis between acute appendicitis and the disease most commonly confused with it in (a) a child; (b) an elderly man; (c) a young married woman.
4. Discuss briefly the indications for tonsillectomy and give the more important post-operative complications.
5. Discuss the etiology and treatment of post-operative thrombophlebitis.
6. What are the effects upon salt metabolism of prolonged and severe vomiting in abdominal lesions? How may these effects be counteracted?
7. Discuss the relative value of irradiation and surgical methods in the treatment of skin cancer.
8. Give the diagnosis and treatment of subphrenic abscess.
9. Outline the management of acute obstruction of the urinary flow in an elderly man with an enlarged prostate.
10. Give the symptoms, physical findings, and management of a crush fracture of the body of the second lumbar vertebra.

OBSTETRICS

1. What are the indications for a caesarian operation?
2. What is ectopic pregnancy?
Discuss such a case as to: (a) history; (b) diagnosis; (c) treatment.
3. A woman, 8 months pregnant, calls you to her home because she is bleeding a little from her uterus. Discuss as to etiology and treatment.
4. Outline treatment of acute salpingitis.
5. How would you treat subinvolution of the uterus?

SPECIALTIES

1. Describe the lesions and give the differential diagnosis and the treatment of Scabies.
2. Give causes and treatment of Epistaxis.
3. Give treatment of Corneal Ulcer.
4. Outline care and treatment of "earache" in a baby, including instructions to the nurse.
5. Outline treatment, management and instructions to patient in acute gonorrhea.

Periodic Health Examination Manual Revised by A.M.A.; Copies Available

A committee appointed by the Board of Trustees of the American Medical Association to co-operate with the Bureau of Health Education of the A.M.A. in revising the Manual for Periodic Health Examinations for Apparently Healthy Persons has completed its work and has issued a revision under the title "Periodic Health Examination: A Manual for Physicians". The manual represents a complete revision of the material which was first issued in 1925 and superficially revised in 1932. Complete instructions are included for all the necessary physical examinations and many suggestions are given for hygienic advice to the patient. Single copies of the manual can be obtained by writing the Bureau of Health Education, A.M.A., 535 North Dearborn St., Chicago. The price is 25 cents.

Have you renewed your narcotic license?
If not, do so immediately, as July 1 is the deadline, and tardy registration subjects you to a heavy fine. Applications should be filed with the Collector of Internal Revenue in your district. (See page 547, May issue, The Ohio State Medical Journal for details of procedure under the Harrison Narcotic Law).

Ohio Doctor Who Helped Make Medical History Honored by Colleagues

Faculty of the College of Medicine, Ohio State University, and members of the medical profession of Columbus, paid a belated tribute on the evening of June 20 to the man who in the 1890's was the first American physician to recognize glandular fever, by tendering a dinner in his honor at the University Hospital.

For 20 years, Dr. Frederick A. Korell, the guest of honor, had been living in retirement in Columbus—his role as a medical pioneer recognized by medical authorities and textbooks, but unknown to most of his colleagues in Ohio.

It was in April, 1896, that Dr. Korell, now 79 years of age, read a paper before the Belmont County Medical Society, describing and discussing glandular fever. Months later he learned that six years earlier the disease had been recognized in Russia and that a year before his own paper was presented it had been discussed by a German physician—all the discoveries being independent of each other.

When he retired from active practice in Belmont County, Dr. Korell moved to Columbus. Recently a chance conversation in the office of Dr. Charles W. Pavey, Columbus, brought Dr. Korell's discovery to the attention of the Columbus profession.

At the dinner program, Dr. Pavey introduced Dr. Korell and Dr. H. M. Platter and Dr. L. B. Turner, classmates of Dr. Korell at Starling Medical College. Dr. J. W. Means presented the College of Medicine with a portrait of Dr. Korell. The original manuscript of Dr. Korell was displayed.

Cleveland—Dr. Leona Glover and Dr. Roger O. Egeberg, Cleveland, were speakers on the marriage series sponsored by the Y.M.C.A. and Y.W.C.A. at Bowling Green.

Ravenna—Methods of conserving eyesight were discussed by Dr. R. D. Worden at a meeting of the Garrettsville Parents and Teacher's Association.

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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In Memoriam

Julius William Boiarsky, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1905; aged 59; died May 3. Dr. Boiarsky moved to Cincinnati six months ago following his retirement from active practice in Charleston, W. Va. Surviving are his widow, a daughter, two sons, two sisters and two brothers.

Len Lenton Culp, M.D., Des Moines, Iowa; New York University College of Medicine, 1899; Illinois Medical College, 1900; aged 67; member Indiana State Medical Association and Fellow of the American Medical Association; died May 10. A native of McComb, where he practiced for one year, and former student at Ohio State University, Dr. Culp retired a year ago after 23 years in the United States Indian Service.

Gertrude Jones Cuscaden, M.D., Chillicothe; University of Michigan Medical School, Ann Arbor, 1874; aged 91; member of the Nebraska State Medical Association and the American Medical Association; died May 16. Dr. Cuscaden is believed to have been Chillicothe's first woman physician. She practiced there from 1874 to 1884, when she moved to Omaha, Nebraska, continuing in practice there until 1922. Upon her retirement in 1931 she returned to Chillicothe. Three sons, two sisters and a brother survive.

George Bigler Ehrman, M.D., Miami Beach, Fla.; Pulte Medical College, Cincinnati, 1883; aged 81; died May 24. Dr. Ehrman moved to Miami Beach in 1931 following his retirement after over 40 years' practice in Cincinnati. Three sons survive.

Lucius Barnes Goodyear, M.D., Dixon, Ill.; Physio-Medical College of Indiana, Indianapolis, 1894; aged 77; former member of the Ohio State Medical Association and the American Medical Association; died May 12. Dr. Goodyear retired

two years ago after having practiced for 40 years in Toledo. During the last World War, he was a lieutenant-colonel in the United States Army. Dr. Goodyear was a member of the Masonic Order. A sister survives.

George W. Hoglan, M.D., Bedford, Va.; Cincinnati College of Medicine and Surgery, 1885; aged 79; died June 5. A native of Newcomers-town, Dr. Hoglan was one of the organizers of the American Insurance Union, a fraternal insurance company. He was its medical director, and subsequently became secretary and president. Dr. Hoglan was secretary of the A.I.U. when its building was erected in Columbus. His widow, a son and a brother survive.

S. S. Holtz, M.D., Plymouth; Pulte Medical College, Cincinnati, 1877; aged 89; died June 7. Dr. Holtz retired two years ago after practicing in Huron County for many years. He was a member of the Methodist Church and the Masonic Order. Two sons survive.

Harry Addison March, M.D., Canton; George Washington University School of Medicine, Washington, D. C., 1901; aged 62; died June 10. A former practicing physician in Canton and New York City, Dr. March was coroner of Stark County for 12 years. Dr. March was known as the "Father of Professional Football", having organized the New York Giants and later the Canton Bulldogs. During the World War he was in the Medical Corps of the U. S. Army, and was a major in the Reserve Corps. He was a member of the Methodist Church. Survivors include his widow, a son, a brother—Dr. Douglas W. March, Pierre, S. Dak., and a sister, Dr. Julia March Baird, Youngstown.

Leiland E. Phipps, M.D., Youngstown; University of Michigan Medical School, Ann Arbor, 1908; aged 56; member of the Ohio State Medical Association and Fellow of the American

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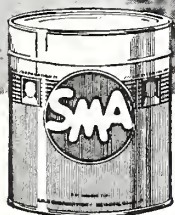
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Medical Association; died June 2. Dr. Phipps practiced in Youngstown for 30 years. During the last World War he served in the Medical Corps of the U. S. Army. Dr. Phipps was a member of the American Legion, the Protestant Episcopal Church, the Phi Gamma Delta fraternity, and the B.P.O.E. His widow, his mother, two daughters and a son survive.

Herbert Ausburn Rodenbaugh, M.D., Barberton; Ohio Medical University, Columbus, 1902; aged 66; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 27. A member of the Summit County Medical Society since Feb. 7, 1905, Dr. Rodenbaugh practiced in Barberton for 38 years. He was a captain in the Medical Corps of the United States in 1917-1919, having been overseas for 18 months. From 1921 to 1924, he was a major, commanding the 134th Hospital Company. Dr. Rodenbaugh was a member of the American Legion, the Veterans of Foreign Wars, the Disabled American Veterans and the 40 and 8. Surviving are his widow, a daughter, a sister and a brother—Dr. Norman F. Rodenbaugh, Barberton.

Adolph Steiner, M.D., Cleveland, Cleveland College of Physicians and Surgeons, 1891; aged 72; died May 23. Dr. Steiner was one of the founders of Mt. Sinai Hospital, and was a member of its staff until his retirement in 1931. Two sisters and three brothers survive.

Hunter Robb Sunkle, M.D., Cleveland; University of Cincinnati, College of Medicine, 1929; aged 37; member of the Ohio State Medical Association and the American Medical Association; died May 15. Dr. Sunkle practiced in Cleveland for 10 years. His widow, his mother, two sons and a sister survive.

Louis Valerio, M.D., Cincinnati; Regia Università di Napoli Facoltà di Medicina e Chirurgia, 1911; aged 54; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 4. Dr. Valerio came to Cincinnati following his graduation from medical school in Naples, Italy. He returned to his native land following Italy's entrance into the last World War, and was commissioned a captain in the Italian Medical Corps. At the end of that war he resumed practice in Cincinnati. Dr. Valerio was a member of the Masonic Order, a former president of the Orders of the Sons of Italy and a leader in the Roman Knights. His widow, five sisters and two brothers, survive.

Robert Carl Van Buren, M.D., Carey; Eclectic Medical College, Cincinnati, 1901; aged 64; member of the Ohio State Medical Association and the American Medical Association; died May 31. Dr. Van Buren practiced in Carey for 39 years. A member and former commander of the Carey

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OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 9th. Informal and Personal Courses every week.

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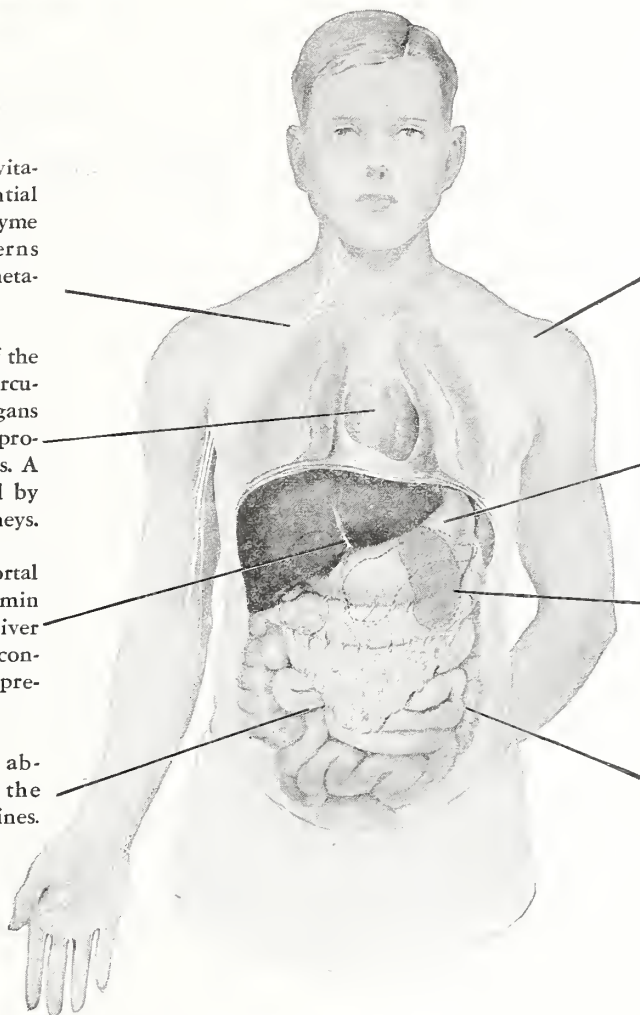
This page is the seventh of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the June 22 issue of The Journal of the American Medical Association.

(4) In nerve tissue, vitamin B₁ is an essential component of an enzyme system which governs one phase of the metabolic process.

(3) The remainder of the vitamin enters the circulation, the various organs removing thiamin in proportion to their needs. A large amount is used by heart, liver, and kidneys.

(2) By way of the portal circulation the vitamin is carried to the liver which under normal conditions retains an appreciable amount.

(1) Vitamin B₁ is absorbed from both the large and small intestines.



(5) In skeletal muscle, vitamin B₁ also forms a part of an essential enzyme system governing a phase of the oxidative process.

(6) The secretory and motor function of the stomach may be affected by involvement of the gastric nervous mechanism as a result of B₁ deficiency. This may account for the anorexia in this condition.

(7) If excessive quantities of vitamin B₁ are ingested and absorbed, they are not stored for future use but are excreted by the kidneys; during periods of diuresis considerable quantities of the vitamin may be lost.

(8) Vitamin B₁ found in the feces is largely the result of bacterial growth. Coprophagy provides a source of B₁ for some species of animals.

The Metabolic Fate of Vitamin B₁

In the tissues, vitamin B₁ is an essential part of an enzyme system governing one phase of cellular metabolism. Vitamin B₁ appears to be converted to co-carboxylase, which is essential for the oxidation of pyruvic acid, one of the intermediary products of carbohydrate metabolism.



Post of the American Legion, Dr. Carey served in France in 1919 in the Medical Corps of the U. S. Army. He was a member of the Masonic Order, the Lutheran Church and the Modern Woodmen of America. Surviving are his widow, a son—Dr. H. K. Van Buren, Carey, a daughter and a sister.

Martha Rau Williams, M.D., Cincinnati; Laura Memorial Woman's Medical College, Cincinnati, 1897; aged 67; former member of the Ohio State Medical Association and the American Medical Association; died May 24. Dr. Williams retired in 1937, after practicing in Cincinnati for 40 years. She was a member of the Cincinnati Women's Club. Her sister survives.

Theodore M. Wittkamp, M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1875; aged 86; died May 21. Dr. Wittkamp retired eight years ago, but maintained the office in Cincinnati where he had been established 65 years. A daughter survives.

Four Cases Heard at First Session of Medical Board of Review

The first medical board of review to be convened under the occupational disease law, G. C. 1465-68A, as amended last year by the Ohio General Assembly, met at the offices of the State Industrial Commission, Columbus, June 1. This statute provides for appeal to a board of physicians in cases of alleged occupational disease wherein the claimant is dissatisfied with the findings of the Commission.

Four cases were heard by the Board, which at this first session consisted of Dr. Frank Riebel, Columbus, chairman; Dr. George I. Nelson, Columbus, and Dr. A. B. Brower, Dayton. In accordance with the law, personnel of the board was selected by Dr. J. H. J. Upham, Dean of the Ohio State University College of Medicine; Dr. R. H. Markwith, State Director of Health and the State Industrial Commission, from a list of physicians appointed by them last Fall to serve on such boards. (October, 1939, issue *The Ohio State Medical Journal*, page 1111).

All cases heard were of alleged injuries to the lungs due to the inhalation of fumes or dust. In each instance the previous findings of the Industrial Commission were sustained by the medical board of review.

Announcement was made of the selection of Dr. E. H. Voke, roentgenologist, Akron, to the list of physicians eligible to serve on boards of review. He succeeds Dr. J. H. Selby, Akron, who has moved out of the state.

Columbus—Dr. Drew L. Davies spoke on "First Aid in the Home", at a meeting of the Zonta Club.

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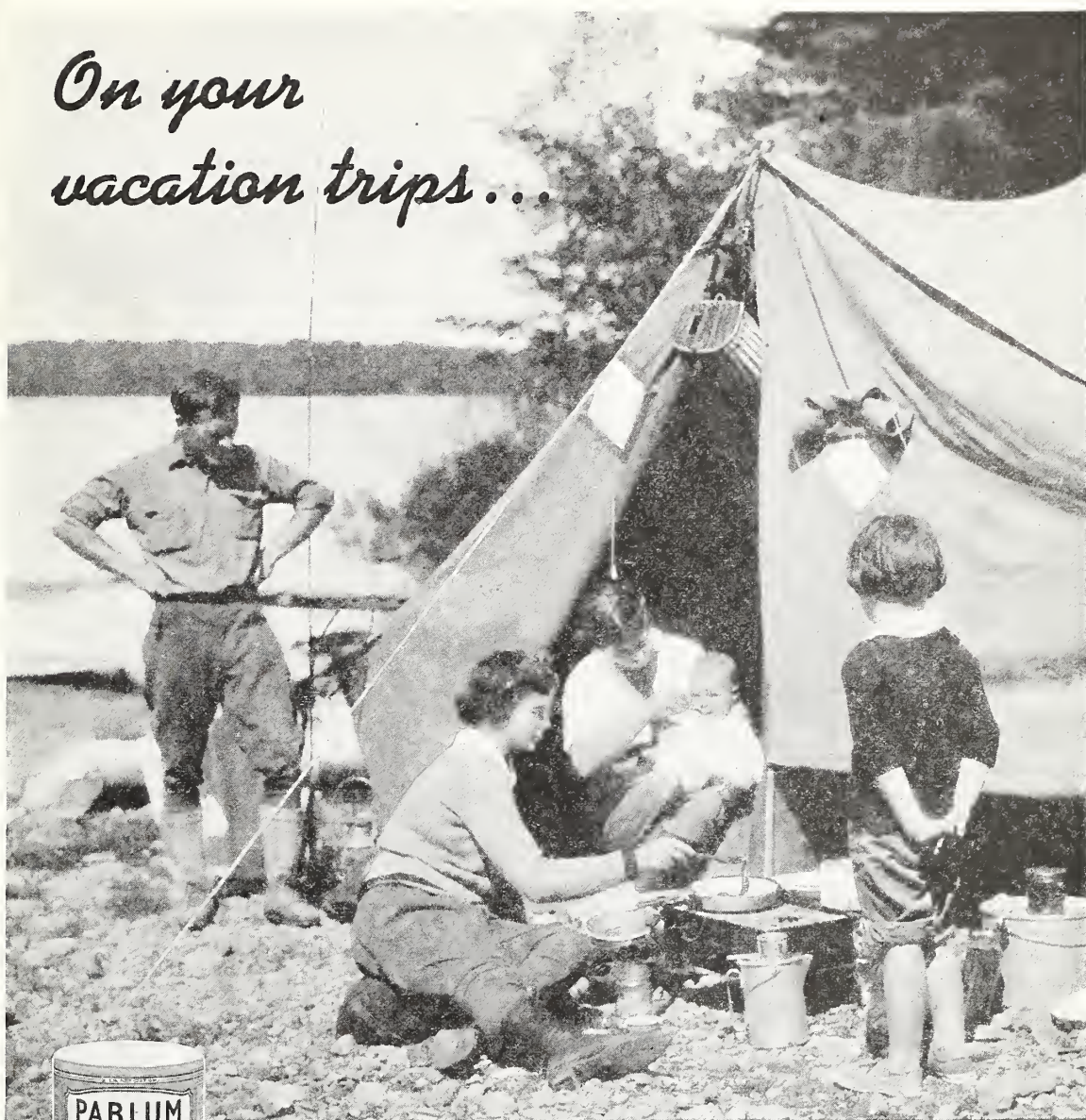
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Activities of County Societies

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ADAMS

An all-day session of the Adams County Medical Society was held at the West Union Courthouse, Wednesday, June 19. Following a business meeting, Dr. Sam Clark, Cherry Fork, spoke on "Twenty-Five Years of General Practice". Dr. A. R. Carrigan, Manchester, was the discussant. Dr. S. J. Ellison, West Union, reported as legislative committeeman. In the afternoon, Dr. Ralph Waldo Eddy, Cincinnati, spoke on "Conservative Treatment of Gynecological Conditions", with discussion by Dr. R. C. Wenrick, Winchester. "Some Observations on Obstetrical Practice in Adams County", was the topic presented by Dr. Hazel L. Sproull, West Union, and discussed by Dr. R. B. Ellison, Peebles. The session closed with a roundtable discussion of poor relief. During the noon hour members of the society were guests of their West Union colleagues at the Hooper Home Hotel.—O. T. Sproull, M.D., secretary.

BUTLER

Hon. Gideon Palmer, Judge of the Probate Court of Butler County, discussed problems concerning the immediate care of the insane in the county, at a meeting of the Butler County Medical Society, Thursday evening, May 23, at the Elks' Temple, Hamilton. Twenty-two members and three guests were present. The society adopted a plan for the care of Farm Security Administration clients in the county.—Vera Coombs Iber, M.D., secretary.

HAMILTON

Dr. John H. Skavlem is the new president-elect of the Cincinnati Academy of Medicine. Other officers, who take office in September, are: Dr. Charles E. Kiely, president; Dr. Richard D. Bryant, secretary; Dr. H. H. Shook, treasurer; Dr. Ralph G. Carothers, trustee; Dr. Lloyd B. Johnston, Dr. Charles J. McDevitt and Dr. E. O. Swartz (retiring president), delegates; Dr. Leon Schiff, Dr. Theodore H. Vinke and Dr. Eugene B. Ferris, alternates.—R. A. Swink, executive secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

Dr. Wallace B. Taggart, Dayton, gave a very interesting lecture on "Icterus of the Newborn", at a meeting of the Greene County Medical Society, Thursday, June 6, at Xenia. Dr. R. R. McClellan was selected to represent the society in aiding the Women's Field Army for the Pre-

vention of Cancer in its campaign of education among lay groups. The next regular meeting of the society will be on July 11, as the regular meeting date—the first Thursday in each month—falls on Independence Day.—Donald F. Kyle, M.D., secretary.

MONTGOMERY

The annual dinner meeting of the Montgomery County Medical Society was held at the Dayton Country Club, Friday evening, June 7. Thomas Larkin presented colored motion pictures of a "Treasure Hunt in the Caribbean".—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

ALLEN

"Carcinoma of the Uterus", was the subject discussed by Dr. Harry Hauser, Cleveland, at a meeting of the Academy of Medicine of Lima and Allen County, Thursday, June 18, at the Lima

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Memorial Hospital.—Edward B. Pedlow, M.D., correspondent for *The Journal*.

CRAWFORD

The Crawford County Medical Society met Monday, June 3, at Green Lawn Inn, Crestline. Following dinner, the Ciba Company presented a sound and technicolor movie on "The Use of Coramine in Respiratory and Circulatory Failure".—Theo. D. Sawyer, M.D., secretary.

SENECA

At a meeting of the Seneca County Medical Society, Thursday evening, June 13, at the Shawhan Hotel, Tiffin, Dr. F. B. McNierney, Toledo, spoke on "Surgical Aspects of Right Lower Quadrant Pain", and Dr. A. R. Klopfenstein, Toledo, discussed "Urological Aspects of Right Lower Quadrant Pain".—M. H. Aiken, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

Dr. Richard Hotz spoke on "Differential Diagnosis of Biliary Tract Lesions", at a meeting of the Toledo Academy of Medicine, Friday evening, June 7, at the Academy Building, Toledo. Dr. J. L. Stifel and Dr. Wm. A. Neill, were the discussants. The annual golf tournament of the Academy was held at the Sylvania Country Club, Thursday, June 6.—Bulletin.

SANDUSKY

"Hints on the Practical Treatment of Hay Fever", was the subject discussed by Dr. Karl D. Figley, Toledo, at a meeting of the Sandusky County Medical Society, Thursday, May 23, at Fremont.—News clipping.

WOOD

Dr. Gordon B. Myers, professor of medicine, Wayne University College of Medicine, Detroit, spoke on "Differential Diagnosis and Treatment of Jaundice", at a meeting of the Wood County Medical Society, Thursday evening, May 23, at the Woman's Club, Bowling Green.

"Osteomyelitis", was the subject discussed by Dr. Edward P. Gillette, Toledo, at a meeting of the society, Thursday evening, June 20.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

Dr. Charles T. Way was the unanimous choice of the Board of Directors of the Academy of Medicine of Cleveland and Cuyahoga County for president in 1940-1941. He succeeds Dr. Russell L. Haden, who remains on the Board of Directors. Other officers are: Dr. Edward H. Cushing, vice-president; and Dr. A. Carlton Ernstene, secretary-treasurer. New directors for a three-year term ending May, 1943, are: Drs. Joseph M. Hayman, E. F. Kieger, M. Paul Motto, John A. Toomey and C. T. Way.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

William P. Ewing, D.D.S., Akron, gave an interesting talk on "Fractures of the Face and Jaw, and Infections of Dental Origin", at a meeting of the Portage County Medical Society, Thursday evening, June 6, at the Twin Lakes Country Club, Kent. Dentists of the county were guests at the meeting. Dr. Elizabeth A. Leggett, delegate to the Ohio State Medical Association, reported on the Cincinnati meeting. A buffet luncheon was served after the meeting.—E. J. Widdecombe, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

LICKING

Dr. George T. Harding, Columbus, spoke on "Common Mental Disorders", at a meeting of the Licking County Medical Society, Tuesday evening, May 28, at Hull Place, Newark. Dr. G. A. Gressle, delegate to the Ohio State Medical Association, gave a report on the Cincinnati meeting.—News clipping.

MORGAN

"Late Effects of Head Injuries", was the subject presented by Dr. Harry E. LeFever, Columbus, at a meeting of the Morgan County Medical Society, Thursday evening, May 23, at McConelsville.—News clipping.

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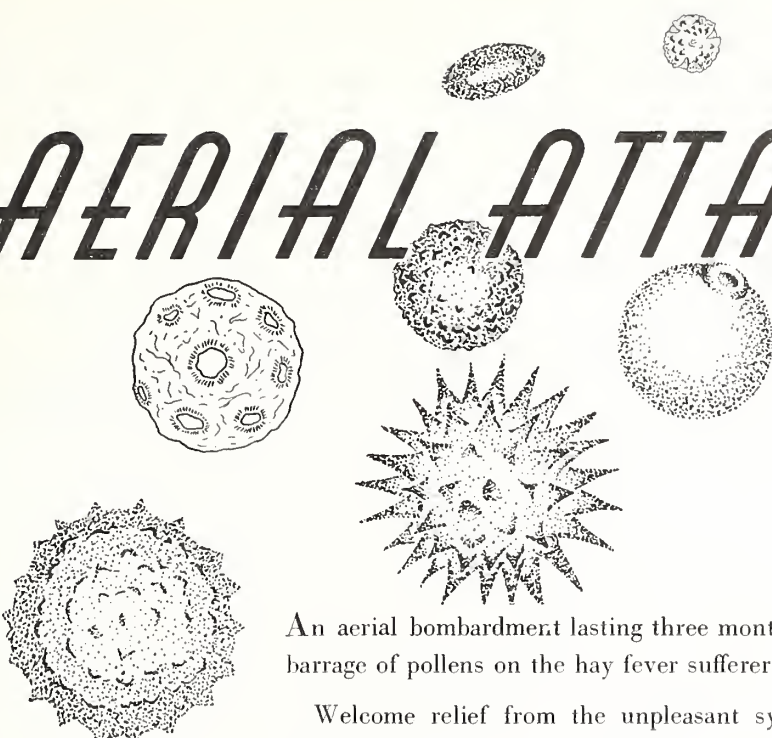
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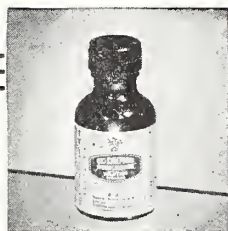
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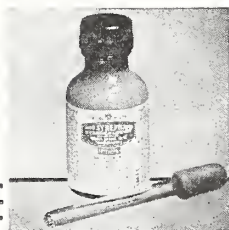
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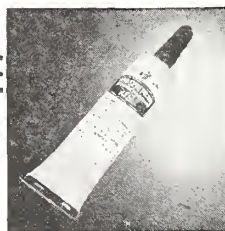
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of Medicine, Wednesday evening, June 5, at the University Club, Zanesville, was devoted to a discussion of the Annual Meeting of the Ohio State Medical Association held at Cincinnati, May 14-16.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

Dr. W. B. Faircloth, Zanesville, spoke on "Surgical Management of Toxic Thyroid", at a meeting of the Washington County Medical Society, Wednesday evening, May 8, at Marietta. Guests at the meeting included Dr. E. R. Brush and Dr. N. M. Newport, Zanesville.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

Dr. H. Jerry Lavender, Cincinnati, spoke on "Treatment and Management of Burn Cases", at a meeting of The Hempstead Academy of Medicine, Monday evening, June 10, at the Portsmouth General Hospital. A moving picture, "Intravenous Anesthetics", was shown.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

Dr. Russel G. Means, Columbus, gave a very interesting talk on "Infections in the Nose, Throat and Sinus, and Their Complications", at a meeting of the Fayette County Medical Society, Thursday night, June 6, at the Hotel Washington, Washington C. H.—James F. Wilson, M.D., secretary.

Eleventh District

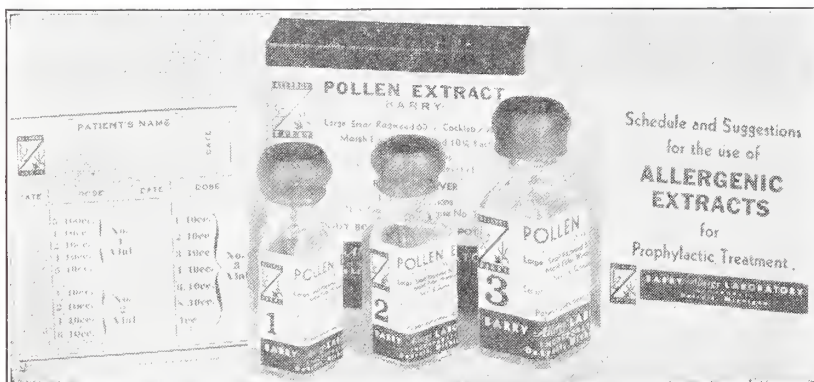
(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

LORAIN

"Diagnosis and Treatment of Common Anorectal Diseases", was the subject discussed by Dr. Clayton C. Perry, Cleveland, at a meeting of the Lorain County Medical Society, Tuesday evening, May 21, at the Elks' Restaurant, Elyria.

A meeting of the society, Tuesday evening, June 4, at the Lorain Country Club, was devoted entirely to business matters. Included were reports of delegates to the State Meeting, and a discussion of fee schedules, poor relief, the Farm Security program, etc.—I. L. Levin, M.D., secretary.

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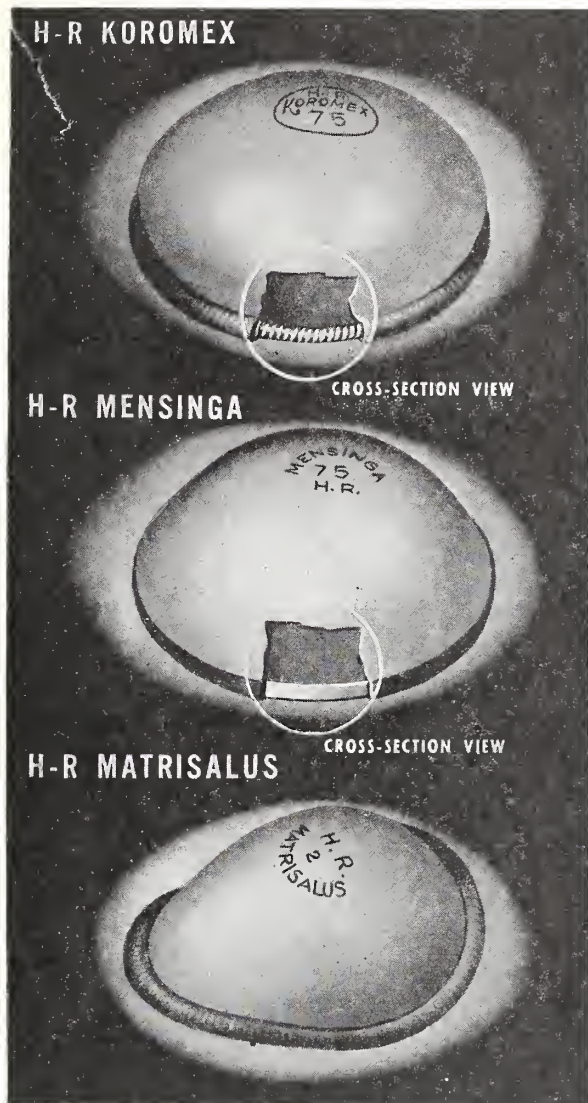


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The Physician's Bookshelf

School Health Problems, by Laurence B. Chenoweth, M.D., and T. K. Selkirk, M.D. (\$3.00. *F. S. Crofts & Co., New York*) is a textbook for students of education and others interested in the nature of health problems in the schools by two Cincinnati physicians who are familiar with the subject. Those of us who are going to meet the problems of the school child in the preschool child this Summer will profit much by reading this book. It deals with growth and nutrition, physical examinations, control of communicable diseases, vision, hearing, tuberculosis, mental hygiene, physical education and accidents.

Clinical Roentgenology of the Alimentary Tract, by Jacob Buckstein, M.D. (*W. B. Saunders Company, Philadelphia, Pa.*) is the best thing that has appeared on the subject since Carmen wrote his classic volume. The author, through his experience, is unusually well fitted to write on this subject and he has done a splendid job.

Functional Human Anatomy, by Cleveland Pendleton Hickman, Ph.D. (\$3.75. *Prentice-Hall, Inc., New York*) is designed especially to meet the needs of premedical students, and students of physical education. The author has succeeded in this attempt. Reading the book offers a good chance to review what we all should remember but have forgotten because we learned it the hard way and thereby buried the useful in the useless.

A Doctor's Holiday in Iran, by Rosalie Slaughter Morton, M.D. (\$3.00. *Funk and Wagnalls Co., New York*) is an informative report on Persia by the author of "A Woman Surgeon". It is easy to read and gives a worthwhile picture of this old country which is now coming into the world's big new fuss.

Viruses and Virus Diseases, by Thomas M. Rivers (\$2.50. *Stanford University Press*) is a Lane Medical Lecture. It discusses the pathology, immunological and serological phenomena of the treatment and prevention of virus diseases as well as the nature of viruses.

Cancer of the Breast and Cancer of the Uterus, by Marion Ellsworth Anderson, M.D. (\$3.00. *The Franklin Press, Clinton, Iowa*) is the second edition of this little book which first edition was reviewed in *The Journal*. As usual, this author's royalty will go to support cancer work. An atlas for laymen designed to meet the well illustrated booklets of the quacks.

Endocrines and General Practice, by Marko J. Petinak (\$3.00. *The author, 219 W. 7th St., Los Angeles*), resembles a student's notebook and the author admits to having been a student for these many years.

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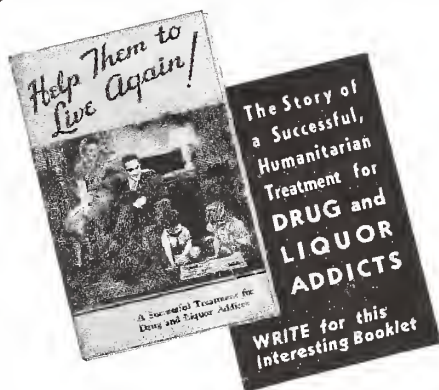
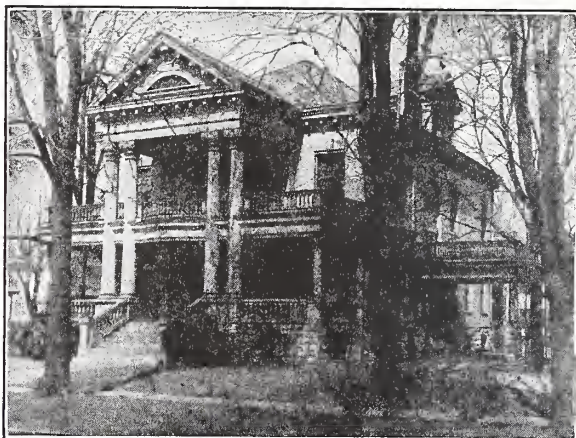
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Intestinal Obstruction in the Newborn Due to Congenital Anomalies

DONALD M. GLOVER, M.D. and CARL A. HAMANN, M.D.

INTESTINAL obstruction in the newborn carries a high mortality even when the infant is given the best care. Without prompt and accurate diagnosis, careful preparation and judicious surgery, the outlook is hopeless. An anomaly of the intestinal tract is the usual cause, and early recognition of the etiological factor is essential to a successful outcome.

The occurrence of obstruction due to intestinal anomalies is infrequent. Few surgeons have had an opportunity to observe many. Webb and Wangenstein¹ estimate that atresia or stenosis occur once in approximately 20,000 births. Clagett² believes that abnormalities in rotation are about one-half as frequent as atresias and stenoses. Ladd's³ series of 60 cases from the Children's Hospital in Boston, which is the largest reported from a single institution, would confirm this statement. Forty of his cases were due to intrinsic defects and 20 were due to errors of rotation.

A review of the records of three large general hospitals in Cleveland, covering a period of 17 years prior to 1940, disclosed 18 cases of acute intestinal obstruction due to anomalies. Of these an equal number were due to intrinsic defects and errors of rotation (including failure of peritoneal fusion). During this interval there were also 21 anomalies of the rectum and anus with partial or complete obstruction, in the newborn,

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● Dr. Hamann, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1934; junior visiting surgeon, St. Luke's Hospital; demonstrator of Anatomy, Western Reserve University School of Medicine.

two instances of large defects in the abdominal wall, and one patient with a patent omphalo-mesenteric duct. For comparative purposes, it may be of interest to note that during this same interval of time the presence of a Meckel's diverticulum was noted at operation or necropsy in 65 patients of all ages. In five patients obstruction was caused by herniation of bowel into mesenteric defects, four associated with errors of rotation of peritoneal fusion, and in one instance the defect was in the root of the mesentery.

It will be recalled that the development of the intestinal canal makes its most significant prog-

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ress during the second and third months of foetal life. The rapid elongation of the intestinal tube necessitates considerable coiling and looping. This process, together with fixation in adult position, constitutes rotation. During the first weeks

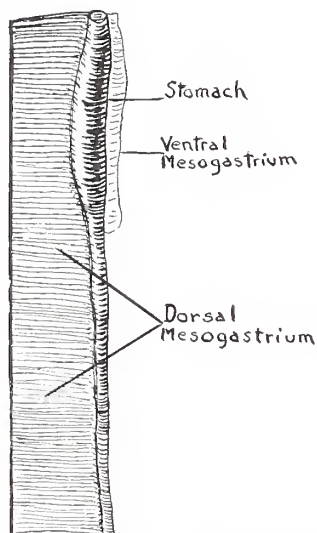


Fig. 1. Early stage in the development of the intestinal tract. (After Callander⁴).

of embryonic life the anlage of the intestinal tract consists of a simple endodermal tube which conforms itself to the contour of the embryo. (Figure 1.) During the second month disproportionate lengthening occurs in that portion of the tube which is to give rise to the small intestine, caecum, ascending colon and part of the trans-

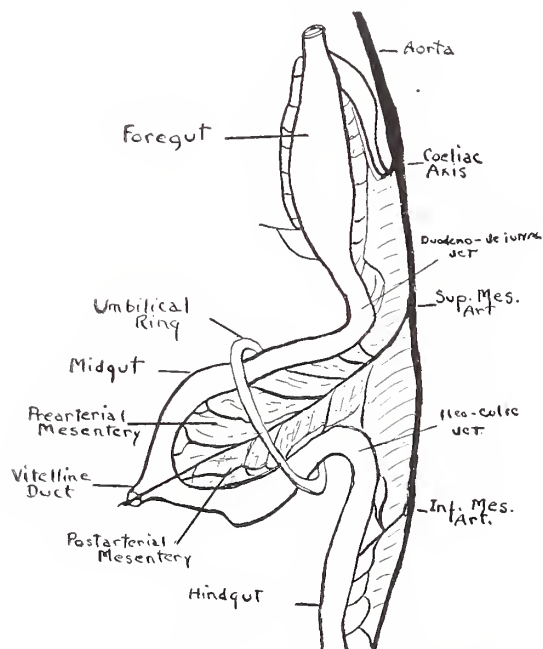


Fig. 2. Development of the midgut loop. (After Dott⁵).

verse colon. This region is known as the **midgut loop** and is supplied by the superior mesenteric artery (Figure 2). The rapid increase in length to produce the numerous loops of small intestine with which we are familiar, and associated rapid growth of the liver cause this portion of the intestine to be pushed into the lumen of the umbilical cord. The duodeno-jejunal and ileo-colic junctions are indicated in the diagram. The interval between them is known as the duodeno-colic isthmus.

As elongation continues this region of the intestine rotates in counter-clockwise fashion with the artery as its axis, first through 90 and then through 180 degrees (Figure 3.) Initially

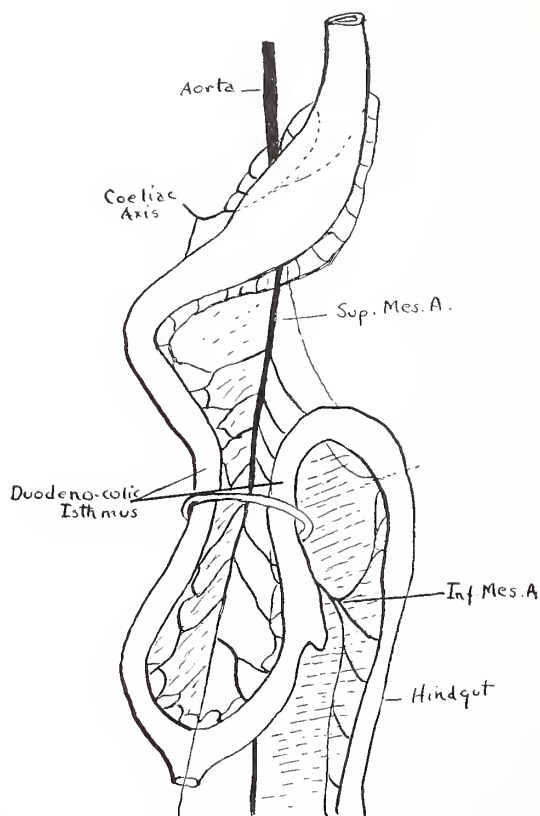


Fig. 3. Development of the intestinal tract. Beginning Rotation. (After Dott⁵).

the prearterial segment is above and anterior to the artery, and the postarterial segment of mesentery is below and posterior. Rotation reverses this relationship. Events described thus far have occupied approximately the first ten weeks of intrauterine life.

Next, recession of the bowel from the cord is beginning, the abdominal cavity now being sufficiently roomy. (Figure 4.) The proximal coils of jejunum enter first, passing from right to left behind the superior mesenteric artery, thus add-

ing another 90 degrees of counter-clockwise rotation. The caecum and ascending colon reenter last, lying first in the left and then in the right hypochondrium. As this occurs, the duodenocolic isthmus is widened and this will be of great importance as we shall see later. Recession of the coils of intestine probably requires only a few minutes.

In the next stage, shown in Figure 5, rotation is almost complete, and peritoneal fusion is beginning. Fusion of the contiguous layers of visceral and parietal peritoneum occurs, until the relationships become those which we expect to find. This is completed at or shortly after birth. At about this time the caecum descends from the right upper quadrant to become fixed in the right lower quadrant.

During this process of rotation, certain events transpire within the lumen. At approximately the fifth week, the epithelium of the mucosa begins to proliferate until the lumen of the tube is almost completely occluded. Recanalization then begins, and at birth the canal is restored. Authors do not agree as to the existence of this obstruction. It has not been definitely established except at the region of the ampulla of Vater, but it affords a convenient explanation for the atresias and stenoses that occur in different parts.

ANOMALIES

From the foregoing description it becomes apparent that if the normal sequence of events goes astray at any point serious consequences may result, and that these abnormalities may vary widely. Briefly they may be grouped under the headings: (1) errors of rotation and failure of fusion; and (2) defects in intrinsic development producing atresia, stenosis, or actual interruption in continuity. Atresia is regarded as complete and stenosis as partial occlusion.

Errors of rotation and fusion. Failure of the midgut loop to return from the umbilical cord produces congenital hernia into the umbilical cord. If the return is partial, hernia is accompanied by a disturbance in rotation. The coils may return simultaneously, thus retaining the primitive relationship with the large intestine on the left and small intestine on the right. This would be **non-rotation**. When rotation is not completed the pattern will be intermediate between non-rotation and the normal, and is described as **partial rotation**. **Reversed rotation** may occur if the caudal portion returns first. The caecum then passes behind the superior mesenteric artery from left to right unwinding the counter-clockwise rotation and terminating with the transverse colon behind the duodenum.

As described previously, when rotation and peritoneal fusion have occurred normally, the root of the mesentery is attached on a broad base which

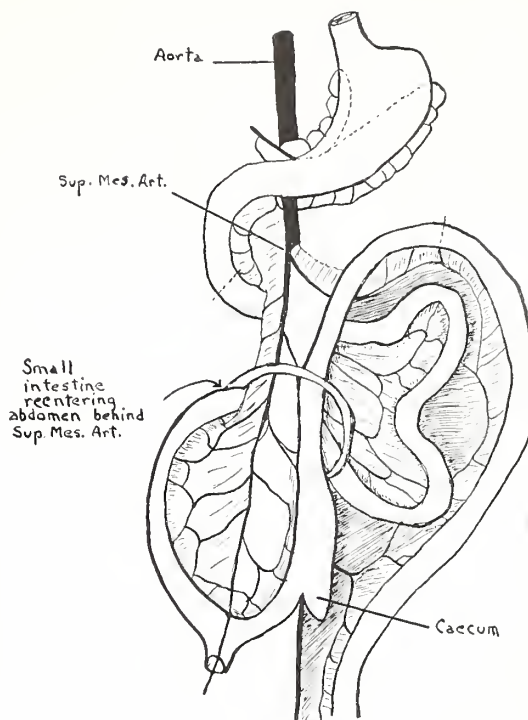


Fig. 4. Development of the intestinal tract. Further rotation and return of the midgut loop to the abdomen. (After Dott⁵).

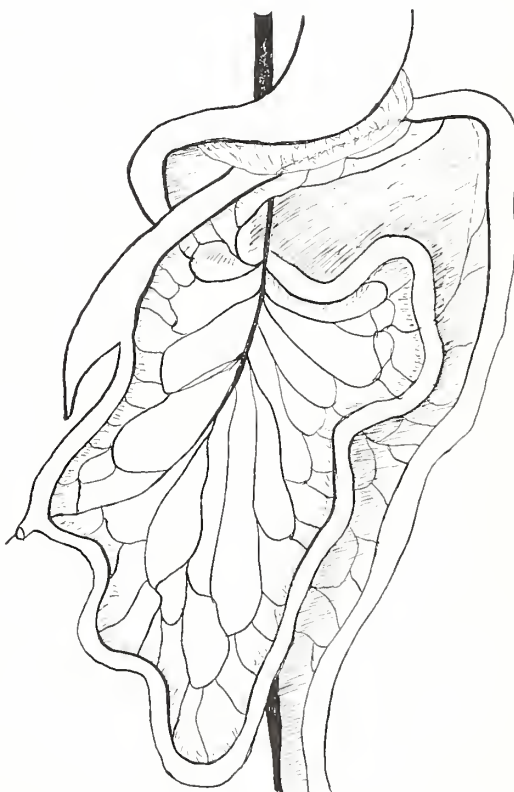


Fig. 5. Development of the intestinal tract. Rotation completed. (After Dott⁵).

offers a considerable restraint to volvulus of the coils of small bowel. On the other hand, when rotation is incomplete or abnormal, the duodeno-colic isthmus remains narrow, the restraining force is missing, and volvulus is likely to occur. Similarly when peritoneal fusion fails partially or

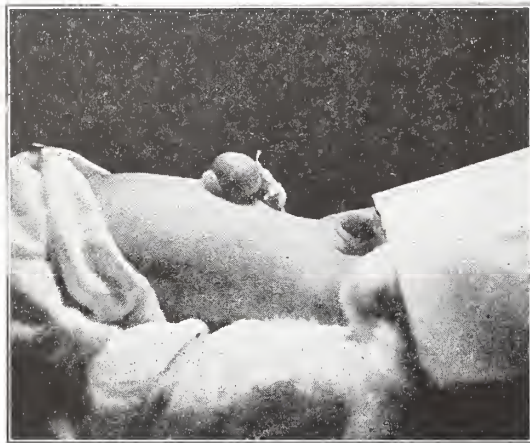


Fig. 6. Case 1. Congenital hernia into the umbilical cord, shown a few hours after birth.

completely, mesenteries persist in portions of bowel normally lacking them, and such loops being abnormally mobile are ready sites for torsion or volvulus.

Intrinsic defects. These defects may include stenotic or atretic leaflets, constriction or even absence of varying lengths of bowel, and defects in the mesenteries.

Etiology. The etiology of anomalies has never been explained, and attempts to do so are mere

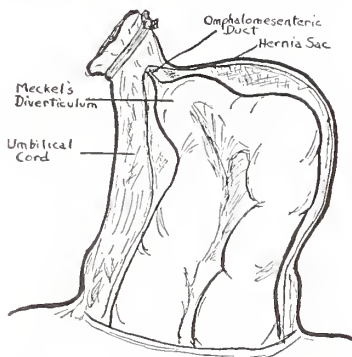


Fig. 7. Case 1. Showing diagrammatically the contents of the hernia sac illustrated in Fig. 6.

postulations. With an understanding of the embryology and some imagination, the errors are understandable, but the cause is still elusive.

CLINICAL DATA

Congenital Umbilical Hernia. The consequence of failure of the midgut loop to return to the abdomen is at once apparent as soon as the baby

is born. Case 1 (Figure 6) illustrates the minimal failure of the return of intestine, resulting in a small hernia of the umbilical cord at birth. The diagram (Figure 7) shows the contents of the sac to include a loop of ileum about 10 cm. long with a small Meckel's diverticulum at its apex still attached to an incompletely obliterated omphalomesenteric duct which has been ligated with the cord.

Within a few hours after birth, under procaine anaesthesia, the umbilical vesicle was excised, the diverticulum ligated and invaginated, the bowel returned to the abdomen, umbilical vessels ligated, remnant of cord excised, and the defect in the abdominal wall closed. Convalescence was uneventful. It may be possible that this infant also has some error of rotation which was not demonstrated at operation, but which may be shown by later roentgenographic examination. The other extremes in this type of error is represented by three cases in this series; namely,

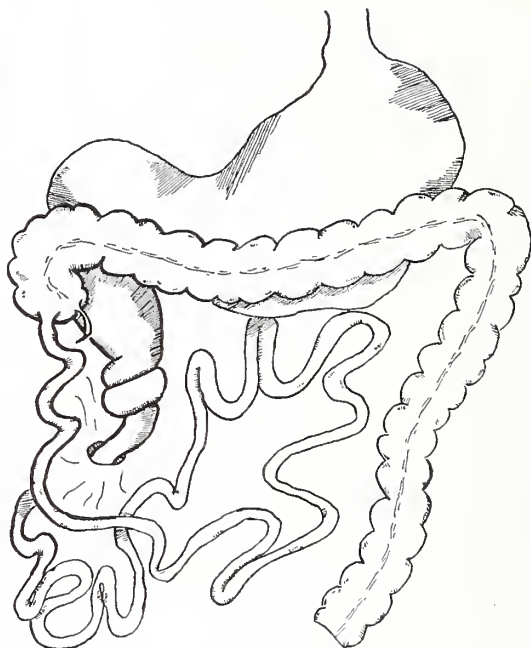


Fig. 8. Case 7. Incomplete rotation with volvulus of small intestine and congenital defect in meso-ileum.

arrested development with practically the entire intestinal tract and liver in an enormous umbilical sac, with associated hypoplasia of the abdominal wall. Such anomalies are almost always impossible of relief. In this group of patients this type of anomaly was observed twice in stillborn foeti and once in an infant who died within 24 hours of attempted operative closure. (Cases 2, 3, and 4.)

Non-Rotation. Nonrotation was present in two instances (Cases 5 and 6), in both of which atresia of the rectum and sigmoid colon was also present. Both were operated upon, one with a colostomy and one with simple exploration. Both died.

Incomplete Rotation. (Case 7.) This five day old infant had been vomiting bile or bile-stained material since birth. Examination revealed distention and visible peristalsis in the upper abdomen. Stools were brown and soft with curds. Roentgenograms with opaque material showed

the stomach and duodenum to be widely dilated and very little entered the small intestine, but what did was all on the right side in definitely small intestinal pattern. Gas shadows on the left suggested colon. The vomiting of bile together with visible peristalsis and the X-ray pattern strongly suggested duodenal obstruction with mal-rotation. At operation, (Figure 8) the stomach and duodenum were found markedly dilated, the proximal loops of jejunum were cyanotic. The caecum was in the upper abdomen. The entire small intestine had rotated two complete clockwise turns about the superior mesenteric artery, thus producing duodenal obstruction. Furthermore, the proximal jejunum penetrated a defect in the mesentery near the ileo-cecal valve. After reduction of the volvulus the obstruction was relieved and circulation of the jejunum immediately improved. No attempt was made to fix the bowel. The postoperative course was uneventful, and subsequent roentgenograms showed no evidence of obstruction.

Case 8. A five weeks old infant who presented a picture of high intestinal obstruction, and upon exploration disclosed a partially rotated colon with stenosis of the second part of the duodenum with adhesion bands attached to the unrotated caecum. Release of these bands resulted in recovery.

Case 9. A child of three years admitted with symptoms of obstruction of 24 hours duration, almost moribund and with severe dehydration. The upper abdomen was markedly distended. Dehydration and shock were treated initially, and after several hours exploratory laparotomy showed incomplete rotation of the midgut loop, with herniation of a loop of ileum through a defect in the terminal meso-ileum. The loop had twisted and become gangrenous. (Figure 9.) Exteriorization of this loop was done with an enterostomy tube in either end. The patient died on the second postoperative day.

Congenital "Bands". Case 10, may or may not properly fall into the classification of congenital bands resulting from aberrant rotation. This newborn infant was observed for eight days while vomiting and distention increased. At operative exploration the entire small intestine was markedly distended as well as the large intestine up to the splenic flexure, where the operator described constricting bands. The baby died after ileostomy and no necropsy was performed. No irregularity of rotation was noted by the operator. One is inclined to wonder whether this was an unrecognized case of reversed rotation, or stenosis due to peritoneal bands associated with some irregularity in the process of rotation and fixation.

The congenital bands which are occasionally found along with irregularities of rotation have been often attributed to effects of fetal peritonitis. Huntington⁶ more logically attributes them to points of irregular peritoneal fusion. The cause of mesenteric defects through which small intestine may herniate (as in Cases 7 and 9) is not clear, but Treves⁷ has called attention to the arch formed by the distal intestinal branches as they anastomose with the ileo-colic branch of the superior mesenteric artery. Within this arch, which is a common site of such defects, the peritoneum contains no fat or vessels, perhaps predisposing to perforation from unusual pressure. It is general opinion that at least some of these defects are congenital.

In Case 11, which was operated upon with a probable diagnosis of pyloric stenosis, an opening through the gastro-colic omentum with herniation of jejunum into the omental bursa was found. Recovery followed replacement and clos-

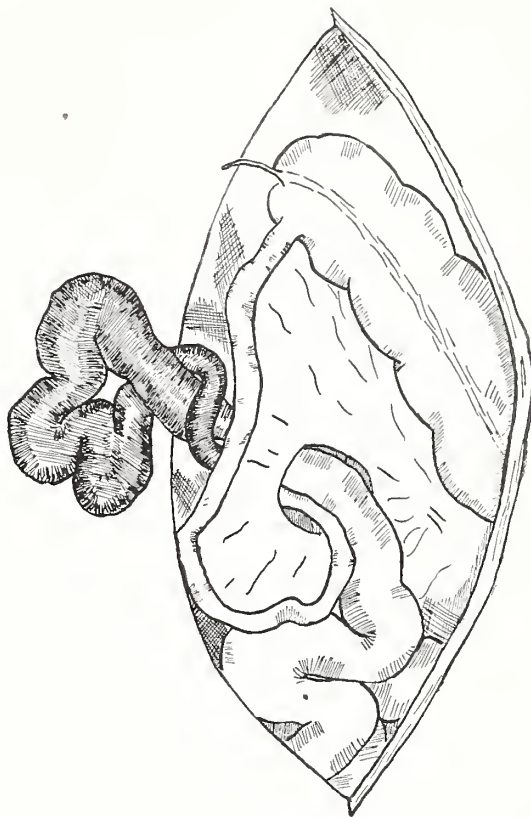


Fig. 9. Case 9. Incomplete rotation with gangrene of loop of ileum herniated through a defect in the meso-ileum.

ure of the defect. A similar case has been described by Morton and Jones.⁸

Duodenal Stenosis. Of the patients in this series presenting stenosis or atresia, several were recognized only at necropsy.

Case 12 (Figure 10) was admitted to the hospital at 10 months of age with a long story of

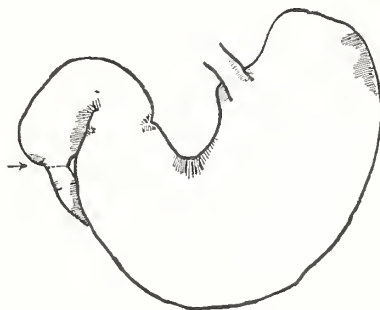


Fig. 10. Case 12. Congenital stenosis of the duodenum.

intermittent vomiting and died within 15 minutes. A note by a resident of another hospital upon a previous admission when the baby was only one

week old mentioned marked abdominal distention and visible peristalsis. Perhaps the tragedy might have been avoided if the earlier observation had been followed up. Necropsy showed a stenotic leaflet between the first and second parts of the duodenum.

Case 13, a newborn, was observed 10 days before death. In spite of the fact that roentgenograms showed that opaque material passed readily into the small intestine, necropsy showed an enormously distended oesophagus, stomach and duodenum, with a marked degree of stenosis at the duodeno-jejunal junction. No evidence of malrotation was noted.

Case 14, who presented several other abnormalities, died eight days after birth with complete stenosis of the duodenum just proximal to the ampulla.

Case 15 was operated upon at six days of age and found to have duodenal stenosis at the ampulla of Vater, but died eight days later in spite of lysis of adhesions in the neighborhood. No necropsy was performed. It seems quite possible that this may have been an intrinsic defect.

Case 16, who also presented several other anomalies was operated upon at six weeks of age with a probable diagnosis of pyloric stenosis, which was not present. At necropsy a few days later, a partial stenosis was found at the duodeno-

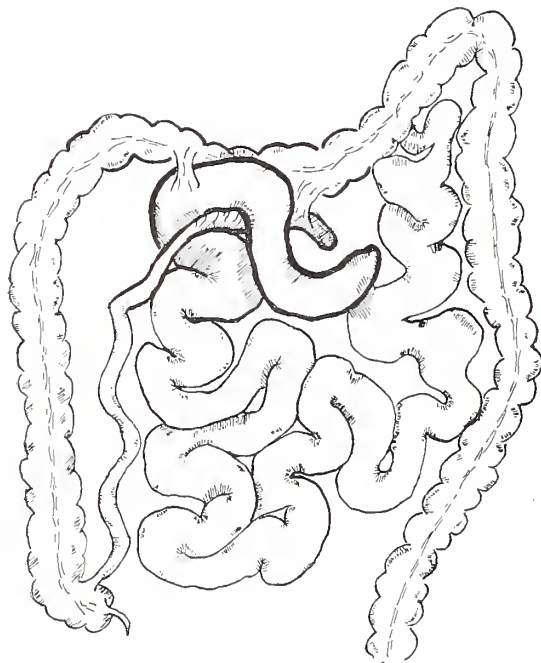


Fig. 11. Case 17. Congenital atresia of the ileum.

jejunal junction, which had not yet produced any appreciable dilatation of the duodenum.

Atresia of Ileum and Colon. Of the cases of atresia of the ileum and proximal colon, Case 17 was operated upon on the day of birth. A collapsed terminal ileum and colon were found (Figure 11). Approximately two feet of ileum were missing, and about the band connecting the ends was twisted a gangrenous blind end of

ileum. An ileostomy was done, but the patient died 24 hours later.

Case 18 presented a similar picture when operated upon on his third day. Ileostomy was performed and he died on the fourth postoperative day.

Case 19, operated upon on his third day also, presented an atresia of the entire colon down to the distal sigmoid colon. The baby died following an ileosigmoidostomy.

"Ring Pancreas". An entirely different cause of duodenal stenosis is illustrated by Case 20. This five weeks old infant was admitted with a history of vomiting beginning at two weeks and gradually increasing in amount and frequency, with corresponding loss of weight. Examination revealed emaciation and dehydration, with visible

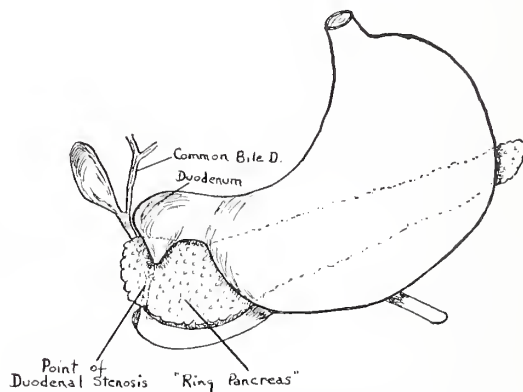


Fig. 12. Case 20. "Ring pancreas" with stenosis of the second part of the duodenum.

epigastric peristalsis. Roentgenograms showed marked dilatation of the stomach and first part of the duodenum. At operation the second part of the duodenum was found to be encircled and constricted by pancreas (Figure 12). The ampulla and common bile duct lay behind the duodenum. Pancreatic tissue was divided in the hope of relieving the obstruction. Since the baby continued to vomit, on the fourth postoperative day, an anterior gastro-jejunostomy was done under novocaine anesthesia. Following this procedure convalescence was satisfactory.

The foetal development of the pancreas is shown diagrammatically in Figure 13, which affords some explanation for the development of the "ring pancreas" which is an unusual cause of duodenal stenosis. It is also possible that in the case described an intrinsic lesion existed in the duodenum.

ANOMALIES OF ANUS AND RECTUM

Generally speaking, the group of rectal and anal anomalies* is much more favorable. Among the 21 cases previously mentioned, three patients with complete aplasia of the rectum died following colostomy; one recovered following colostomy and subsequent production of a perineal anus; two recovered following perineal operations at birth in which the blind colon loop was brought

* (The anomalies of the Anus and Rectum will be given further consideration in a subsequent publication).

down from behind the bladder and attached to the skin of a small perineal incision.

One case of imperforate anus recto-vaginal fistula died following operative attempt to produce a perineal anus. All the other patients presented minor degrees of atresias of the anus and rectum with and without pinpoint perineal fistulae or recto-vaginal fistulae. All the latter group recovered following simple operative relief.

DISCUSSION

From the brief clinical data presented⁹ in the foregoing paragraphs, the personal experience of the authors, and the opinions of other surgeons of greater experience, a few generaliza-

strongly suggestive of duodenal obstruction below the ampulla.

(b) A flat film of the abdomen showing an abnormal pattern of distended loops of bowel, with the small bowel predominantly on the right, suggests the presence of an error in rotation.

(c) Administration of radio-opaque material is apparently safe, and may offer valuable additional information.

4. The obstruction may be incomplete initially, but may become complete during observation.

5. Operation offers the only satisfactory method of treatment, and the surgeon must be able to recognize the anomaly quickly, and correct

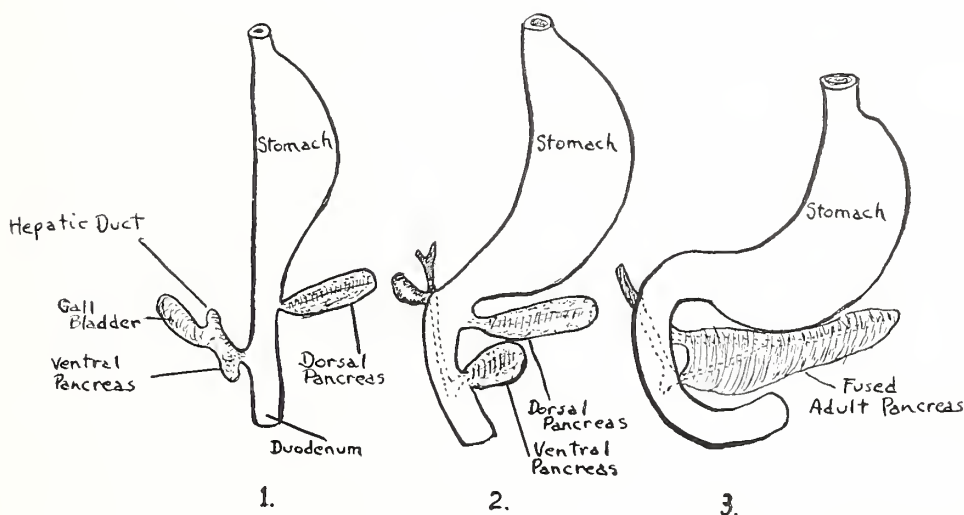


Fig. 13. Development of the pancreas. (After Callander⁴). Failure of the ventral pancreas to swing about in the process of rotation to join the dorsal pancreas (in 2 and 3) may result in the "ring pancreas" as shown in Case 20.

tions may be made concerning intestinal obstruction due to intestinal anomalies.

1. Survey of the cases here presented, reveals an exceedingly high mortality, which was due in several instances to delay in establishing the correct diagnosis.

2. Persistent vomiting occurring shortly after birth or during infancy should make the physician suspicious of the existence of an anomaly of the intestines.

It should be remembered that anomalies of rotation do not produce obstruction until some complication such as volvulus has occurred, and that therefore the child may not present itself until later in life. The intrinsic defects, on the other hand, produce obstruction immediately after birth.

3. Accurate anatomical diagnosis is seldom possible, but the evidence of obstruction is usually definite, and consideration of certain evidence may suggest the correct diagnosis:

(a) Persistent vomiting of bile in infancy is

it in the most gentle and direct manner. The occasional operator is not likely to give the baby its best chance of survival.

6. The infant will rarely tolerate an open enterostomy, and anastomosis is very much to be preferred.

While McIntosh and Donovan¹⁰ and some other experienced observers favor fixing the caecum in the right iliac fossa, this procedure should be adopted with caution, since it occasionally increases the hazard.

7. The infant tolerates dehydration very poorly. He should not be operated upon until it is overcome, and it should be remembered that normal fluid balance cannot be maintained satisfactorily until the obstruction is relieved.

8. The surgeon should be cautious in accepting peritoneal bands as adequate causes of obstruction. The true cause may be an underlying intrinsic defect.

9. In the opinion of the authors local anesthesia

is preferable when applicable. Otherwise drop ether is indicated.

SUMMARY

The mechanism of the development of intestinal anomalies has been outlined, and a series of 20 illustrative clinical cases briefly described. Suggestions have been made for the better surgical management of the infant with intestinal obstruction due to anomalies.

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Infectious Mononucleosis With Jaundice

The fact remains that infectious mononucleosis, as we know it now, is an exceedingly complex and multiform disease. Though various attempts at classification have been made, it is possible that we may be in danger of taking too much for granted. Perhaps the disease is not a single entity, but two or more closely related diseases. The extremes of types, from those with sudden and severe onset to those with almost no constitutional reaction, from those with petechiae to those with no apparent rash, from those with membranous angina to those with jaundice and no sore throat, from those with very slight adenopathy to those with massive, from patents with the complication of hemorrhagic nephritis to those with no abnormal urinary findings, indicate that if these conditions are not diverse infectious mononucleosis if capable of the most astounding variety of manifestations.—A. A. Chapman, M.D., Sweetwater, Tex., and John Chapman, M.D., Sanatorium, Texas; *Southwestern Med.*, Vol. XXIV, No. 6, June, 1940.

Time is not only a great healer; it is a wise diagnostician.—Fetterman.

Cancer of the Bone

In considering the early signs and symptoms of cancer of the bone, I do not wish to be an alarmist; however, I want to emphasize the necessity for making a thorough investigation of any evidence which would suggest a lesion of such a serious character.

Unfortunately, there is no characteristic set of symptoms in the early stages of bone cancer that lead us to suspect such a condition. The age incidence is of no definite value to us, since malignancy may occur in any age; however, there are certain pathological types that occur in certain ages. Primary chondro-sarcoma usually occurs between the ages of 14 and 21 years; secondary chondro-sarcoma between 30 and 50 years; sclerosing osteogenic sarcoma up to 25 years; osteolytic sarcoma up to 20 years. However, most patients complain of pain in the area, although in multiple myeloma the pains are of rheumatic nature, often shifting from one portion of the body to another. The pain in the early stages is not severe, but quite frequently the patient complains of being unable to sleep. There is often an elevation of temperature and a leukocytosis, suggesting an infection; since many of these tumors occur in the teen age, they may easily be confused with osteomyelitis. The blood picture is not characteristic, but there may be leukocytosis. Geschickter and Copeland say that no particular significance need be attached to this unless the temperature is over 101, or the leukocyte count is above 18,000.

Physical examination in the early stages may not reveal anything more than a tender, slightly enlarged, area of the bone, or thickening through the part, usually in the diaphyseal area. Most malignant tumors of the bone do not invade the epiphysis nor cross the epiphyseal line until late. The mass may have a crepitant and pulsating feel.

Our diagnosis is most often made by the X-ray, which is very characteristic in many cases. The final diagnosis is made by the pathologist.—R. A. Moore, M.D., Winston-Salem, N. Carolina; *Carolina Med. Jr.*, Vol. 1, No. 7, July, 1940.

WAR . . . makes pleasant news for the tubercle bacillus. As the deaths from T.N.T. increase, those from tuberculosis lag not far behind. In the World War all countries showed this phenomenon whether under arms or not. What effect on our efforts to eradicate tuberculosis will these grim months ahead bring forth? . . . Unless we find a way to redouble the offensive against our hidden enemy, the sad story of twenty years ago will be told again and we will find ourselves facing a record of lost ground.—Kendall Emerson, M.D.

Primary Sarcoma of the Ileum With Perforation

Case Report

C. F. FRANKMAN, M.D., and D. H. DRUMMOND, First Lieut., M.C., U.S.A.

SINCE malignant neoplasma of the small bowel are relatively uncommon it was considered that this case, showing a rare complication, was worthy of being reported.

The patient, a 74-year-old female, was admitted to Wayne Hospital on January 5, 1940. She stated that she had been treated for an upper respiratory infection and severe cough for about two weeks previous to admission. Two days before admission she suffered a sudden severe abdominal pain. The pain became progressively worse, localized in the lower left quadrant, and large amounts of greenish fluid were vomited.

On admission physical examination revealed an elderly female who was acutely ill. The abdomen was markedly distended, tympanitic, and extremely tender. The tenderness was most marked in the lower left quadrant. There was complete absence of borborygmus. The pulse rate was 120, respirations 24, and temperature 99.6° F. The blood pressure was 110/90. The leucocyte count was 5,000 and the differential showed 58 per cent mature forms, 8 per cent staff and 55 juveniles and 19 per cent lymphocytes. Urine showed two plus albumin but was otherwise negative. Since the patient was in a very serious condition when admitted, operation was considered inadvisable. Intravenous fluids were administered and a Miller-Abbot tube was inserted and suction started. The patient became progressively worse and expired at 2:30 A.M. two days after admission.

The post-mortem examination was limited to the abdominal organs. The peritoneal cavity contained a large amount of cloudy yellow fluid and some free gas. The bowel was greatly distended and covered with thick fibrino-purulent exudate. In the lower ileum there was a lemon-size mass extending from the wall of the bowel. The mass showed extensive necrosis which had resulted in a perforation connecting the lumen of the bowel and the free peritoneal cavity. Near the free edge of the adjacent omentum there was a flat lime-size mass of moderately firm edematous grayish tissue. There was no gross evidence of metastases to the regional lymph nodes or the liver.

Microscopically the small bowel showed very extensive involvement with diffusely infiltrating neoplastic tissue. The neoplasm cells were spindle-shaped and oval in form, and grew in broad bands and sheets. The nuclei were moderately large and hyperchromatic but showed little irregularity in size and shape. There was marked intercellular degeneration, edema and necrosis,

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so that the neoplasm had an open lacy appearance. The neoplastic cells grew in close relationship with many thin-walled endothelial-lined blood spaces. The neoplasm had invaded the entire wall of the bowel and at the site of perforation showed widespread necrosis. The serosa of the bowel was covered with organizing fibrino-purulent exudate. Tissue from the mass in the omentum consisted of metastatic cells similar to those previously described. The tissue of the omentum proper showed edema and infiltration with lymphocytes, neutrophils and histiocytes. This represented a moderately malignant fibrosarcoma arising in the small bowel, which had undergone necrosis with perforation resulting in a diffuse fibrino-purulent peritonitis.

DISCUSSION

Boyce and McFetridge¹ have given a rather complete critical review of primary sarcoma of the large and small intestine. Excluding the rectum, they conclude that there are about 300 reported cases. This type of neoplastic disease is therefore quite uncommon. The site of predilection of sarcomas is the small bowel, in contrast to the rarity of carcinomas of this region. Thus 95 per cent of all intestinal carcinomas are in the colon while only 34 per cent of sarcomas are found there. Intestinal sarcoma may be found at any age but is seen more frequently in youth than is carcinoma. Since sarcomas may arise from any of the mesenchymal tissues of the intestine a number of possibilities present themselves. However, the neoplasms fall into three general categories: (1) spindle-cell sarcoma which arises largely from the muscular coats and in early stages is external to the mucosa, (2) miscellaneous sarcomas, and (3) lymphosarcomas which are most common in the small

From the Wayne Hospital, Greenville, Ohio.
Submitted May 29, 1940.

bowel. Obviously due to the presence of lymphoid tissue in the bowel, lymphoblastomas of various types will produce tumors here. Sarcomas of the bowel produce severe symptoms usually due to mechanical effects such as stenosis, angulation, intussusception and aneurysmal dilatation. Diagnosis is difficult and X-ray examinations give little aid. In questionable cases if the patient is not too ill laparotomy is indicated.

Since the incidence of sarcoma of the bowel is small, that of one of its complications, namely perforation, is quite rare. Monad and Arnal² reported a case of acute peritonitis resulting from perforation of a lymphosarcoma of the ileum. The portion of ileum involved was removed and after a stormy course the patient recovered from the operation. Follow-up deep X-ray therapy was given but the ultimate prognosis was considered hopeless. Oettle³ reported a case of primary round-cell sarcoma of the small bowel with perforation and early peritonitis. The tumor and adjacent mesentery which contained metastatic nodules were resected. The patient recovered from the operation and was given X-ray treatment. Lewis⁴ reported a case of lymphosarcoma of the small bowel with perforation, peritonitis, and death. In their review of the literature they found only six reported cases of perforation of the bowel from lymphosarcoma.

All these cases presented symptoms similar to those of our case, namely a history of acute, severe, abdominal pain with vomiting, distension, and signs of early peritonitis. The diagnosis is difficult since the condition is not often suspected. However X-ray examination would often be of aid in demonstrating free gas in the peritoneal cavity thus giving evidence of a perforation of the gastro-intestinal tract. In the cases reported the cause of perforation was not suspected, yet in all of them the symptoms were sufficiently severe to warrant immediate exploratory laparotomy if the patient's condition would allow. Fabrini⁵ has recently reported a case of perforation of a sarcoma of the ileum and Voshresensky⁶ has reported a case of sarcoma of Meckel's diverticulum with perforation. These are mentioned for the sake of completeness although the articles were not available for abstract.

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Vaginal Antisepsis

The vagina of every woman in labor must be regarded as potentially infected in that it may contain pathogenic bacteria. We believe that the so-called "normally sterile vagina" in the adult female does not exist.

DeLee says that "postpartum fever is due to the inoculation of puerperal wounds with bacteria which are ever present in the parturient canal." Polak maintained that "fully 85 per cent of all women, single and married, have infected cervixes." From the available literature on the subject the conclusion is inevitable that pyogenic bacteria are to be found within the depths of the cervical glands of pregnant women suffering from chronic cervicitis with its attendant purulent leukorrhea. The obstetrician who makes speculum examinations on his pregnant patients needs no other evidence than what he sees to know that the canal is not sterile in most cases, certainly not in most multigravidae.

Constant drainage into the vagina from the cervix and easy and repeated contamination from without conspire to defeat the establishment and maintenance of vaginal asepsis. It is, moreover, certain that infected contents of cervical glands are expressed in the birth canal by the ironing out processes of effacement and dilatation of the cervix during labor.

The obstetrician is the only surgeon who makes no attempt to sterilize his field of operation—the vagina. If it is infected when labor begins, the most perfect technic of preparation that can be devised which does not include the vagina may not be sufficient to prevent puerperal wound infection in the presence of the abrasions, contusions, and lacerations which commonly occur, and especially when the hands of the operator or the forceps blades are passed through an unprepared bacteria-laden vagina into the uterus.

With a perfected technic, antiseptics may be applied to the vaginal walls and cervix just as safely, as thoroughly, and as efficiently as to any other accessible body surface. If we believe that antiseptics kill bacteria, reduce their numbers, and attenuate their virulence, there does not seem to be any good reason why they should not be used in the vagina routinely as they are used routinely elsewhere and for the same reasons.—Charles Edward Ziegler, M.D., Sc.D., and Bruce R. Austin, M.D., Pittsburgh, Pa.; *Pa. Med. Jr.*, Vol. 43, No. 10, July, 1940.

The public health nurse is the advance scout in the business of finding tuberculosis. She, more than any other person in the community, is instrumental in getting contacts examined and active cases under treatment.—Crusader, Oct., 1939.

The Use of Hormones in Cryptorchidism

CARL E. ZEITHAML, M.D.

THE management of the undescended testis remains an unsettled pediatric problem.

Difference of opinion exists as to how this condition should be treated. Earlier investigators employing the gonadotropic extract of human urine of pregnancy reported what appeared to be highly successful results. Recent investigators, using greater care in the selection of patients, report less success with the use of hormones. Some physicians, who emphasize the spontaneous descent which occurs at puberty, go so far as to disregard their use entirely.

In this report the results of hormone therapy in a group of boys with undescended testes are presented. Comments are made on the method of selection of patients, the cause of failure as revealed by operation, and some untoward effects. From these results and from the experiences of other authors, an evaluation of hormone therapy is made. Finally, a procedure for routine treatment is outlined.

Descent of the testis has been brought about in immature monkeys and in boys by the use of several hormone preparations. Four of these will be discussed. The first, testosterone propionate, is a synthetic male sex hormone, the biologic effects of which simulate those of testosterone, the hormone secreted by the interstitial cells of the testis. Its action is primarily that of development and maintenance of the secondary sex characteristics. As a synthetic hormone preparation, it has the advantage of being pure, uniformly potent, and stable. It was tried in a small group of boys with undescended testes in the Pediatric Endocrine Clinic, but its use was discontinued for this condition because of excessive stimulation of genital growth, frequency of erections, and failure to cause descent in any of the patients within the usual six weeks required by another hormone then used. Other investigators have effected descent of the testis with testosterone propionate, although in a small percentage of cases.

The second preparation, like the third and fourth, is a gonadotropic substance, that is, it is gonad stimulating. It is a crude extract of animal pituitary. Its potency is variable, untoward reactions are more severe, and so-called antihormones are likely to develop. The third substance is an extract of pregnant mares' serum. The administration of earlier brands of

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this product was often followed by severe reactions, and so-called antihormones were formed which eventually rendered the product ineffective. The recent extracts, although more highly purified, have not had sufficient clinical trial.

The fourth hormone to be considered is produced by the chorionic tissue of the placenta and is extracted from human urine of pregnancy. This chorionic gonadotropin is the hormone of choice in the treatment of undescended testes. In all probability it plays a role in the normal descent of the testis. In this connection it will be recalled that the human male is the only known mammal in whom the testes are descended at birth, and woman the only female in whose circulation this hormone is present throughout gestation. The chorionic gonadotropin has been recovered from the blood of infants at birth and its characteristic effects on the genitalia are often apparent. There are several advantages which are possessed by chorionic gonadotropin. In the first place, because of its human origin, it is not a biologically foreign protein and so-called antihormones are not produced even after large doses. Second, it has been uniformly standardized, and, finally, its cost is low in comparison with the other preparations mentioned.

The chorionic gonadotropin employed in treatment of our patients is marketed under several trade names. The products used were antuitrin-S, follutein, and korotron. The dosage varied from 100 rat units (R.U.) twice weekly to 400 R.U. three times a week. Injections were given subcutaneously in the deltoid region. A small initial dose was given to avoid the possibility of a severe reaction. Redness and swelling at the

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site of injection have been the only untoward reactions. Localized skin sensitivity diminished with subsequent injections and eventually failed to appear.

Observations on 43 boys (7 months to 15 years of age) with 52 undescended testes are included in this study. These patients were referred with this diagnosis to the Pediatric Endocrine Clinic. Before treatment was begun, on several occasions all patients were carefully examined in the standing position. In none of them could the undescended testis be lowered manually to the normal position. Special effort was made to avoid artificial retraction with various stimuli, for example, the effect of outdoor cold, manual palpation with cold hands, and excitation of the cremasteric reflex by touch. An important requirement from the history was that the testis had never been seen in the scrotum.

The results may be described as follows:

Group I. Patients with both testes undescended. In this group there were nine patients. In two of these boys a diagnosis of adiposogenital dystrophy was also made. In three of the nine boys both testes descended, and in two others one testis descended. Total descended were eight out of 18 testes, or 44 per cent of the bilateral group. All the testes which descended were initially in the inguinal region except one which was not palpable. Dosage with which descent occurred varied from 1000 to 7100 R.U. Of the 10 testes which failed to descend, four, or 22 per cent, were improved in position. One of these that had not been felt became palpable. Six testes, or 33 per cent, showed no improvement. Dosage for those testes not descending was 6650 to 15,600 R.U., on the average twice as much as for those that descended.

Group II. Patients with one testis undescended.—In this group there were 34 boys. Eleven testes, or 32 per cent, descended completely following the administration of 325 to 8200 R.U. Three of these testes were not palpable originally and after descent were definitely atrophic. In 14 boys, or 41 per cent, the position of the testis improved, but in three of them, although the testis descended, a hernia or hydrocele became apparent during treatment. Two of these 14 testes were originally not palpable, and one of these two later proved to be atrophic. In nine boys, or 26 per cent of the unilateral group, there was no improvement. The dosage used in the failures of this group was 4150 to 14,250 R.U.

In the combined bilateral and unilateral groups satisfactory descent occurred in 19 out of 52 testes, or 37 per cent; in 18, or 35 per cent, the position improved, and no improvement occurred in 15, or 29 per cent.

Operation has been performed on 13 of the 33

testes that failed to respond to hormone therapy. In 10 boys hernia was present. All had fibrous bands in the cord that had to be cut to lengthen it. In one of the boys the testis was absent and only a portion of the epididymis was found. In another a small atrophic testis was removed. In the 11 cases in which the testis was placed in the scrotum at operation, the result was satisfactory. The partial improvement obtained with hormone therapy was thought to enhance the operative result. In the group of 20 testes on which no operation has been performed to date, four boys have evident herniae, three hydroceles, five atrophic testes, and only eight show no evident complication.

COMMENTS

The genital changes observed in many of the boys during therapy were a thickening of the cord structures, slight enlargement of the testes, some edema and increase in the size of the scrotum, and a slight enlargement of the penis. In the seven months old infant with hypoplastic genitalia and bilateral undescended testes, both testes descended and the penis enlarged to normal size. In a few of the boys, where the edema of the scrotum and cord was pronounced, the dosage was temporarily reduced.

The genital changes simulating puberty, which other workers have described, have not been observed in the present series because the treatment was interrupted as soon as evidence of precocious maturation appeared. Unless the genitalia are hypoplastic there is seldom any need for treating these boys before the ninth year. Stimulation after this age is less objectionable. The question of possible harm to the undeveloped testis is often raised. With the moderate use of this hormone injury is unlikely, for the substance apparently does not harm the testis of the fetus.

Roentgenograms of the wrist were made on some of the boys in this group. The osseous developmental patterns remained within normal limits. This also has been the experience of other physicians.

There is considerable disagreement as to the age when the undescended testis should be placed in the scrotum. Cooper¹ found that undescended testes in boys over three years of age showed anatomic defects. Bevan², McCrea³, and Deming⁴ advocated the placing of the testis in the scrotum after the second year. Others, including Williams⁵ and more recently Johnson⁶, preferred to wait until the sixteenth year before operating on uncomplicated cases. This stand is taken because of the high percentage of retained testes that descend spontaneously. These authors see no need for hormone therapy. From the surgical standpoint the best results are found between the ages of 10 and 14 years. Between

the second and ninth year the scrotal testis undergoes little development and any retrogressive changes in the undescended testis are very slight. The logical time for treatment, therefore, appears to be just before puberty, or between the ninth and eleventh years. Placement in the scrotum at this time enables the testis, provided it is not defective, to develop in the normal fashion. The solution of the problem before puberty is not only desirable from the standpoint of the testis itself, but it removes a source of worry for the boy and his parents. One boy, aged 12 years, became a psychiatric problem chiefly because of the feeling of inferiority produced by his lack of testes in the scrotum. Prompt correction of the undescended testes, one by hormone therapy and the other by operation, effected a mental cure. The policy of postponement fosters an attitude of neglect, and operations are delayed until irreparable injury is done to the undescended testis. The vulnerability of the inguinal testis to injury is also a good reason for its correction before puberty.

ROUTINE PROCEDURE FOR TREATMENT

1. A careful examination should be made to determine whether the testis is undescended or merely retracted.

2. Treatment should be started preferably between the ninth and the eleventh years. Exceptions that may require earlier treatment are cases with complications, such as hernia, and patients with definitely hypoplastic genitalia. If therapy is prolonged in these patients, it is advisable to watch for any development of precocious bone maturation, by roentgenogram.

3. The dosage recommended is 800 to 1000 R.U. weekly of the chorionic gonadotropin, given in two or three (preferably three) doses and continued for from six to eight weeks if necessary. The initial dose should be small to avoid a severe reaction. If at any time during the course of therapy genital stimulation becomes excessive, the dosage should be reduced.

4. If at the end of such a course only partial descent occurs, it may be justifiable to repeat the course in about six months. If the position of the testis is still unchanged, operation is advised.

5. Parents should be warned that a hernia or a hydrocele may become manifest during the descent of the testis.

CONCLUSIONS

1. Satisfactory results were obtained in 37 per cent and partial results in an additional 35 per cent of 52 undescended testes of 43 patients, following the use of gonadotropic substance from human urine of pregnancy.

2. The use of this chorionic gonadotropin has a

definite value in the treatment of the undescended testis.

3. By eliminating those testes which in all probability descend during puberty, hormone therapy enables the surgeon to perform operation before puberty upon those testes where mechanical factors interfere with their ultimate descent.

4. Hormone therapy, furthermore, enhances the operative success in those testes which because of mechanical factors or complications need surgical treatment.

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Effects of Testosterone on Prostatic Hypertrophy

My experience in the use of testosterone propionate is limited to slightly over two years and is altogether clinical. I think it has a great use in the treatment of certain cases of impotence in those whose age range is within the limit of sexual activity. However, for this it should not be used to the exclusion of other treatment until a careful urological history and examination has been made. Often other factors enter into the production of this particular complaint. Occasionally it is of great value in assisting those men who have lost an interest in their work and who seem to be developing an inferiority complex. Outstanding examples are depressed energy states, nervous exhaustion, asthenias, and sometimes severe menopausal symptoms of the male. They may not complain of sexual debility, but a decrease in the androgenic hormone of the body may play a big part in the general metabolic changes which go to make up a complicated picture. In hypogonadic cases it produces wonderful results. Its use produces growth of the penis, scrotum, testicles, pubic and axillary hair. Parents of boys of this type are certainly grateful for its use. However, the intensive administration of male sex hormone should not be continued over too long a period of time. Long use and excessive doses in these cases may cause enlargement of the prostate which tends to disappear on discontinuance of its use.—C. J. Reynolds, M.D., Bluefield, W. Va.; *W. Va. Med. Jour.*, Vol. 36, No. 5, May, 1940.

Adrenalin in Oil: Results When Used as Inhalation and Intratracheal Injection

ARMAND E. COHEN, M.D.

THE treatment of asthmatic bronchitis and status asthmaticus presents many therapeutic problems. These conditions are frequently due to the chronic thickening and narrowing of the bronchi, inadequate pulmonary drainage, and bronchial plugging.

This type of pathology should be improved by whatever methods promote more adequate drainage. Such therapy is attempted by the use of expectorant drugs, rest in bed, forced fluids, and the use of ephedrine and epinephrine.

The inhalation of a spray of epinephrine is often of help in the milder cases of asthma. Again, iodized oil has been injected intratracheally with some reported beneficial results in the more chronic types of asthma.

EXPERIMENT No. 1

An ordinary DeVilbiss nebulizer with double nasal tip was partially filled with adrenalin in peanut oil and subjected to five pounds of air pressure. The tips of the nebulizer were placed in the nostrils of the patient and he was instructed to inhale deeply, hold his breath a short interval, then slowly exhale. This process was continued until the patient was free of the asthmatic paroxysm, an interval of from five to twenty minutes. So far, more than ten patients ranging in age from five to seventy years have used the spray with varying degrees of relief. Most patients cough up considerable mucus. In one instance relief was obtained whereas the aqueous adrenalin spray had been ineffective. One case in status was not relieved either with the spray or by repeated hypodermic injections of adrenalin. In most instances the relief was prompt and most gratifying. None of the patients complained of dryness nor irritation and temporary improvement of nasal congestion was commented on.

The present strength of adrenalin in oil which is commercially available is a 1:500 suspension. A more concentrated suspension might be desirable to obtain more prompt results. The method like that of the aqueous adrenalin spray is probably most effective for mild asthma. No deleterious effects of any kind have been noted. It is less irritating than the aqueous solution and apparently promotes a greater expectoration of mucus.

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Its use is suggested as a novel and useful addition to the office armamenture in the treatment of bronchial asthma and asthmatic bronchitis.

EXPERIMENT No. 2

Ten patients were selected from the Allergy Clinic of the Louisville City Hospital. Only those patients were selected who had failed to respond to the more usual forms of treatment.

Intratracheal injections of 2 cc. adrenalin in oil and 2 cc. iodochloral were done without preliminary local anesthesia by Dr. Maurice Buckles. Later two of the patients were given iodochloral alone and it was felt that there was no particular advantage to the iodide or poppyseed oil and the additional possibility of sensitivity to these substances caused us to use the adrenalin in 4 cc. of peanut oil.

Our purpose in this experiment was to see if we could combine the possible benefits of intratracheal oil injections with the local astringent effects of adrenalin. The following is a typical case in which a beneficial result was obtained.

P. S., white, female, age 22, has had bronchial asthma since January, 1937.

Sensitiveness: House dust, feathers.

Previous Treatment:

1. House dust extract.
2. Mixed vaccine.
3. Ephedrine.
4. About 1 oz. of aqueous adrenalin and 3-4 ampoules of adrenalin in oil per week.
5. Aminophyllin.

Present Treatment:

- 1-9-40—2 cc. adrenalin in oil with 2 cc. iodochloral. She received immediate relief which persisted to 1-13.
- 1-16-40—2 cc. adrenalin in oil with 2 cc. iodochloral gave her complete relief for two weeks. During this period she required no injection of any kind.

Read before Cleveland Allergy Society, Cleveland, Ohio, March 31, 1940.

The following is a rather typical case in which no apparent relief was obtained.

F. W., male, white, age 53, has had asthmatic bronchitis since February, 1937.

Sensitiveness: None.

Previous Treatment:

1. Mixed vaccine and autogenous house dust.
2. Adrenalin self administered for past year.
3. Iodides, ephedrine.

Present Treatment:

1-9-40—2 cc. adrenalin in oil with 2 cc. iodo-chloral.

1-16-40—Patient refused further treatment stating that cough was worse and asthma no better.

SUMMARY

Of the ten cases observed, six showed definite improvement as evidenced either by a more prolonged period of complete relief than from any previously tried form of therapy, or a marked reduction in the total weekly dosage of adrenalin.

Four patients show no sustained improvement. No patient showed any deleterious effect from the treatment. Particularly there was no evidence of lipoid pneumonia. There was no evidence of constitutional effects such as increased pulse or blood pressure.

Undoubtedly, the present technique has many shortcomings. The optimal dose of the adrenalin and oil has not been determined, possibly larger quantities might be desirable.

Since this report was made before the Cleveland Allergy Society on March 31, 1940, five additional patients have been treated with intratracheal injections of adrenalin in oil. Only one of these failed to receive marked benefit. At present, intratracheal injections of adrenalin in oil are suggested only for those patients who fail to respond to the usual forms of therapy.

Changes Occurring in Preserved Blood

It has been demonstrated by several groups of investigators that changes occur in preserved blood which must modify its use.

In hemorrhage, shock, and anemia preserved blood is as valuable as fresh blood for thirty to one hundred days. However, in the hemorrhagic diseases, e.g., in thrombocytopenia or hypoprothrombinemia, preserved blood loses its value, since both platelet and prothrombin content are reduced markedly within one to three days.

In cases of infection (either acute or chronic) where antibodies and phagocytes are desired, both preserved blood and fresh blood are equally questionable in value, unless the donors have been specifically immunized.—Samuel Spinner, M.D., New Haven, Conn.; Conn. S. Med. Jr., Vol. 4, No. 7, July, 1940.

Industrial Medicine From the Standpoint of the Internist

The association of tuberculosis and silicosis has led to a good deal of confusion, due mostly to the nomenclature used. Gershon-Cohen and Cohen suggest that the term tuberculosilicosis be applied to symptomless cases of infective silicosis, that is, in those in which the infective period has been relatively short. Then, the term silicotuberculosis might be reserved for the frankly tuberculous process associated with silicosis when the bacteriologic diagnosis of tuberculosis is positive. The belief that tuberculosis is usually responsible for the fatal ending in silicosis is widespread. Riddell stated that tuberculosis is the most common and most important complication in silicosis and is responsible for the majority of deaths among silicotics. Lanza, who has had a wide experience, says, "The death rates from tuberculosis among men in occupations in which there is exposure to free silica so far exceed those found for men in other pursuits, as to leave little room for doubt that silica is implicated." Ornstein, on the other hand, believes "that the question of tuberculosis in silicosis is not definitely settled and requires more thorough investigation than in the past. There must be a departure from the method of depending on the x-ray in the diagnosis of tuberculosis in silicosis, and we must now turn to the laboratory for the demonstration of tubercle bacilli in the sputum and to the postmortem confirmation of the diagnosis of clinical tuberculosis in silicosis when tubercle bacilli are not demonstrable in the sputum."

Even at postmortem, it is sometimes difficult to determine the presence of silicosis, and particularly the type of silica causing the disturbance. To aid in this direction, Sweany and Klaas have developed a method of X-ray diffraction analysis of dry powdered lung tissue. They found that by this X-ray method, nearly all crystalline compounds give patterns distinctly different from all others and that the patterns are highly specific for all the different kinds of dust. They also hope to apply this method to the detection of quartz in sputum as a diagnostic aid.—Lorenz W. Frank, M.D., Denver, Colo.; Rocky Mountain Med. Jr., Vol. 37, No. 7, July, 1940.

The prognosis of pleurisy with effusion with negative, doubtful or extremely slight pulmonary findings by X-ray is excellent if patients receive at least four months of sanatorium care; in fact, it is almost as good as the normal population in the same age group. Francis B. Trudeau, M.D.; Amer. Rev. of Tuber., Jan., 1939.

The Dynamic Conception of Psychopathic Personality

MAURICE LEVINE, M.D.

THE psychoanalytic and psychobiologic approaches in psychiatry have led to the transformation of many of its concepts and formulations. Old static diagnoses have become dynamic and revitalized. The neuroses now are largely understood in terms of personality patterns, of anxiety, of unconscious conflict, of defenses and inadequate solutions. And some of the symptoms of the psychogenic psychoses are now understood in terms of the genetic and dynamic development of the individual. In one diagnostic group, however, there has been a lag in the transformation. The understanding of the psychopathic personality has not kept pace with the understanding of the other groups. Too often the psychopath is regarded in the old static way as constitutionally so inferior as to be hopeless, or as a person who is not sick but "ornery". Undoubtedly it is true that constitutional features play a role with the psychopath as with the neurotic and psychotic, but such inborn tendencies do not explain the psychopathic reactions. It is true that the psychopath is often irritating and antisocial, but this is not essentially a manifestation of "orneriness"; it is essentially that the psychopath has a different set of solutions from the neurotic, in which the psychopath tends to make others unhappy and the neurotic to make himself unhappy.

PERSONALITY PATTERNS

It is this fact, that the psychopath tends to make others rather than himself unhappy that accounts in part for our limited knowledge and understanding of the psychopath. He does not make himself unhappy, therefore he does not consider himself sick, therefore he does not come for treatment or resents being sent for treatment, or cooperates in a very limited fashion. But enough have come for treatment so that some understanding has been achieved. And more than that, many neurotics have been found to have, in addition to their symptoms, a set of personality patterns which are essentially the same as those of the psychopath. Such personality patterns in the neurotic we call the neurotic character.

The study and treatment of the neurotic has included the study of the neurotic character, and the findings of such studies are applicable in many ways to those we call psychopaths. In fact, the general tendency of progressive thinking in

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this field is to discard the diagnosis of psychopathic personality and to substitute for it the diagnosis of neurotic character. The older terms of "moral imbecility" and "constitutional psychopathic inferiority" are losing their hold and their frequency in medical circles. Psychopathic personality as a term will also be discarded in favor of the term "neurotic character" unless it comes to have a truly medical significance.

The point of the paper can best be made by listing those groups of individuals whom we include in the psychopath grouping, and then by trying to establish the characteristics which they have in common, their common denominators. These can then serve as the elements of a definition of the entire group. Six groups are commonly listed as subgroups of psychopathic personality. They are the chronic alcoholics, the drug addicts, the sexual deviates (or perverts), the pugnacious or overly-aggressive, the hysterical psychopaths, and the criminal psychopaths.

PSYCHOPATH GROUPING

The behavior of the first four groups is well-known to physicians. The fifth group, the hysterical psychopaths, are those individuals (corresponding in other groupings to the narcissistic psychopaths) whose life behavior is focussed around the need to be the center of attention, to be dramatic, to gain control of a situation, to get sympathy, to have revenge and be spiteful; the suicide gesture or threat is a frequent weapon for the attainment of these ends. The sixth group, the criminal psychopaths, includes those criminals whose crime is not the expression of hunger or simply of a following of a pattern of their social leaders, but in which the

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crime is the expression of an inner need or an inner conflict or a defense against unacceptable inner drives. I think here of a man who attempted murder in reaction to a homosexual approach, with the murder attempt being part of an urge to prove to himself that he had no homosexual drives.

When we examine these six groups, there are at least six common denominators which can be pointed out, to form the basis of a definition of psychopathic personality. The first is that these individuals are not normal, if we use normality in the sense of maturity, of good health and adjustment. In a statistical sense, they may be regarded as normal. A chronic alcoholic may belong to a large social group, all of the members of which drink excessively. In such a group, he is within the statistical norm, but his reactions are pathologic, just as dental caries is pathologic even though statistically it is normal. The second common denominator is that these individuals are not psychotic in the usual sense, of serious distortion of reality. Of course they may become so; the chronic alcoholic may develop a delirium tremens; but they are not necessarily psychotic. The third denominator is that they are not neurotic in the usual sense of the word, of symptoms and signs such as hysterical anesthesia, neurasthenic fatigue or obsessive thoughts. They may be neurotic in that sense, also; the hysteric psychopath may have conversion hysteria or the sexual deviate may develop an anxiety neurosis; but they are not necessarily so. The fourth denominator is also a negative one, that these individuals are not necessarily feebleminded; a drug addict may belong to the moron group, but another drug addict may be of superior intelligence.

These four denominators are negative; the fifth and sixth are positive. The fifth point is that these individuals live to a greater degree than is healthy in terms of short term values. By short term values, or the pleasure principle, we refer to the fact that maturity, adulthood, personal happiness and social adjustment are in part dependent on an ability to give up short term values for long term values, to subordinate momentary gratifications. The child gives up the momentary gratification of relieving his bladder discomfort by wetting himself, for the more lasting pleasures of gaining love, praise, admiration, of escaping criticism and of gaining the pride of self-control.

The school boy gives up the short term gratification of playing ball during school hours for the more lasting pleasures connected with attending school. The medical student chooses the long-term value of studying, the night before an important examination, to the short term value of going to a movie. The psychopath, for

many reasons, is unable to make such a choice. The alcoholic chooses the immediate satisfaction even though he knows it is destroying the lasting values of his health, his family life, and his professional career. A pugnacious or over-aggressive psychopath throws a book at his wife even though he wants to preserve her love for him and to preserve the pleasures of their marriage. The sexual exhibitionist is under the sway of the immediate gratification of showing his penis, even though he knows that such behavior may lead to arrest and exposure, and the destruction of the lasting values of his life.

The sixth of the common denominators of the subgroups listed above is that these individuals tend to solve their life conflicts by overt behavior, by putting their conflicts, or aspects of them, into action, by attempting a solution of their life problems by distorted behavior toward themselves or toward others, in short by "acting out". This point can best be made by reference to the following table, in which neurotic, psychotic and normal solutions are contrasted with the psychopathic solutions.

Conflict	Normal	Neurotic	Psychotic	Psycho-Pers
Exhibitionism vs. Modesty	Exhibitionism in intercourse. Gaining respect for achievement. Lecturing	Exhibitionism in convulsion.	Hallucination of accusation of exhibitionism	1—Exhibitionist 2—Showoff
Antagonism to father	Emancipation. Refusal to be unfairly intimidated.	Obsession father is dead. Phobia of knives.	Delusion father is dead.	Chronic defiance of authority: fights with boss.

Such a table expresses the point of view that all human beings have mental conflicts about unacceptable impulses, of varying depth and severity. The various human groups solve such conflicts in various ways. Two such universal conflicts are listed, with a possible solution of each in the various groups. The first conflict is that between exhibitionism and modesty. A normal adult may solve such a conflict by gratifying the exhibitionism in correct time and place, i.e., in intercourse, where it is a short term value which is not destructive to the long term values. Or the normal individual may solve the conflict by sublimation, i.e., of subordinating the impulse to acceptable ends, of using its energy in socially and personally acceptable channels, e.g., in lecturing or in the desire to be noticed for a worthwhile achievement. The neurotic may solve the exhibitionism conflict by the formation of a neurotic symptom e.g., a hysterical convulsion which involves some body exhibitionism. Here the mechanism would be of repression, and of conversion, with the return of the repressed in the symptom. The psychotic individual may solve the exhibitionism conflict by the mechanism

of disowning and projection, with the formation of auditory hallucinations of being accused of exhibitionism. These three types of solution are to be contrasted with the solution of the psychopath, in which the mechanism is essentially that of acting out, of having the conflicts pervade the life-behavior. Exhibitionistic deviation or perversion, and the show-off social behavior are psychopathic solutions.

A similar contrast may be made in the solutions of the four groups to the problem of antagonism to a father. The normal solution of sublimation, in emancipation and a refusal to be unfairly intimidated, the neurotic solution of symptom-formation of obsessive ideas of the father being dead, or a phobia of knives which symbolize the unacceptable hostility, and the psychotic distortion of reality in the delusion that the father is dead, are all to be contrasted with the acting out of the psychopath, whose unhealthy solution may be to develop a chronic defiance of authoritative figures who unconsciously represent his father.

These are two examples of the acting-out solutions of the psychopath, as contrasted with the solutions of other groups. In all the subgroups such acting out is a primary characteristic e.g., the hysteric suicide gestures, the hysteric spitefulness, the criminal's antisocial behavior, etc. All of these, on adequate analysis, are seen to be attempted solutions of life conflicts.

We have, then, six common denominators of the six groups. These denominators may be the basis of a definition of psychopathic personality in general. We can now define the psychopath as an individual who is not necessarily psychotic, not necessarily neurotic (in the usual sense) and not necessarily feeble-minded, who solves his environmental conflicts and his internal conflicts by preserving the primacy of short term values and by "acting out". Such a definition is a dynamic and vital one. It expresses the central fact that the psychopath is a human being to be understood and treated as a human and a medical problem.

Psychopathology and psychodynamics apply to the psychopath as to other groups in the field of medicine. And in the setting of such a dynamic definition, individual patterns and problems find their place—such a problem as the unconscious sexual significance of kleptomania, the problem of criminality which arises out of a need for punishment, and the problem of the conscience which is not a reliable "still small voice" of good advice but which is corrupt and can be bribed to permit behavior which might hurt others. Physical problems as well as psychologic, e.g., the post-encephalitic behavior problems and many others, are of importance in the understanding of individual varieties. These and many similar problems of prime medical and social

importance are aspects of the medical study of the psychopathic personality.

In short, the term "psychopathic personality", perhaps the most elusive of the psychiatric phrases to define, and long used as a waste-paper basket phrase for un-understood and unclassified patients and problems, now becomes a term which has a more positive meaning and dynamic value.

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Treatment of Male Endocrinopathies

Cryptorchidism.—Patients with cryptorchidism may tolerate very small doses of thyroid. Opinions differ as to the correct dosage of the gonadotropic preparations. My own preference is for a fifty unit dose given two or three times a week for two weeks, doubled at the end of that time if there are no signs of improvement, and doubled again at the end of a month. It is sometimes necessary to give 200 or 300 units twice a week. Occasionally anterior lobe extracts succeed where the gonadotropic preparations fail. If a child is obese, posterior lobe extracts should be used. Male sex hormone preparations may be used in doses of 2.5 to 5 mg. twice a week when the genitalia have failed to attain normal size, but they should be used only after the gonadotropic preparations have brought about descent.

Impotence.—Use thyroid cautiously in cases of impotence. Gonadotropic preparations may be used in doses of 50 to 100 units twice or three times a week. After the age of 45 years, these latter preparations should be used with extreme care.

Male sex hormone preparations in doses of 5 to 10 mg. two or three times a week are helpful. Extracts of the anterior lobe are sometimes quite as effective as the gonadotropic preparations. Extracts of the posterior lobe should be used in the obese.

Prostatic hypertrophy.—Considerable benefit has been reported following the administration of large doses of orchie substance by mouth. The equivalent of about 900 grains of fresh gland was given daily. Symptomatic relief is also reported to have followed the administration of male sex hormone in doses of 5 to 10 mg. three times a week. There is some question as to whether the size of the prostate was actually reduced by this treatment. There seems general agreement that symptomatic improvement occurs in most cases. Posterior lobe extracts are helpful in the obese.

Sterility.—In treating sterility in both sexes one may use thyroid; gonadotropic preparations; or extracts of the anterior lobe. In the male, the male sex hormone may be useful; in the female, estrogenic preparations are of value.—James H. Hutton, M.D., Chicago; *Wisc. Med. Jr.*, Vol. XXXIX, No. 7, July, 1940.

Laryngo-Tracheo-Bronchial Obstructions and Their Secondary Effects

THOMAS C. GALLOWAY, M.D.

THESE is no need to present before this group a discussion of the ordinary phases of laryngeal obstruction. You know by experience the picture of acute obstruction and realize what such a critical situation requires, as the urgency of impending asphyxia may grant only seconds to save life. What may be worth further discussion is the condition in which the immediate emergency may not be so great and the secondary factors may easily be overlooked—factors that are of extreme importance. So easily may they be left out of consideration that not only may proper treatment be so delayed that irreparable cardiac and general exhaustion will ensue, but also other changes will be established with irreversible and fatal pathology. The emphasis has usually been placed at the laryngeal and subglottic level. This discussion proposes to consider what happens lower in the respiratory tract secondary to high obstruction, especially in determining proper treatment and its timing:

The causes of acute laryngeal obstruction are many. The most important are outlined below:

- I. Simple edema, e. g.
Iodides, cardiovascular and renal disease, gout.
- II. Allergy with edema, spasm and plugs.
- III. Acute infections, especially diphtheria, acute laryngo-tracheo-bronchitis, abscesses within and without the airway.
- IV. Chronic infections including tuberculosis, syphilis, leprosy and other granulomata.
- V. Trauma, from instruments, caustics, gases, flame, fracture of the larynx and irradiation.
- VI. Foreign bodies, crusts.
- VII. Tumors, benign and malignant.
- VIII. Paralyses.
- IX. Asphyxia neonatorum.

As a typical condition I shall discuss in detail acute infectious laryngo-tracheo-bronchitis. It gives perhaps an extreme picture, but this may be approached by various other conditions, even not primarily infections. In the first place, it occurs usually in very young children where the laxity of the subglottic tissues permit much edema with consequent marked obstruction; and secondly, associated infection is often grave.

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This, I believe, may be secondary rather than primary. Laryngo-tracheo-bronchitis has been often overlooked or confused with atypical bronchopneumonia, but the more it is studied the more frequently it appears to occur.

SYMPTOMS

The symptoms are typical. A child following an ordinary cold may develop hoarseness, croupy cough, restlessness, stridor and then perhaps rapidly increasing obstructive dyspnea, with marked cyanosis and rapid pulse, or the more serious pale cyanosis of exhaustion, seen especially after sedatives. Obstructive symptoms with retraction, suprasternal intercostal and substernal, usually are outstanding, but it may be lacking if opiates have been given, or, as pointed out by Gittins,¹ if the obstruction is low.

The exact pathology is probably not truly represented by the postmortem findings after tracheotomy and instrumentation. The Jasksons² have given a truer picture by bronchoscopy in the living. Apparently a descending mucositis occurs with first a stage of dry inflammation followed by congestion, edema and excessive secretion. Plugs, crusting and ulceration may occur, especially after tracheotomy without proper humidification of inspired air. Schiller,³ after studying the few postmortem specimens he could find not modified by abnormal agonal processes, considered the condition essentially a cellulitis of the mucosa and submucosa with lymphangitis, edema, infiltration of white cells, focal necrosis and vascular changes.

But an interpretation of the disease process in this and other obstructive conditions based

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on postmortem material, gives a poor idea of what really happens. A perversion of the normal processes and functions of the whole respiratory tract apparently occurs. For a true picture of this physiopathology there is important evidence in the work of Binger and Moore,⁴ Coryllos and Birnbaum,⁵ Kernan and Barach,⁶ Galbraith and Steinberg⁷ and many others. These emphasize the far-reaching effects of increased negative intrathoracic pressure, of secondary vascular changes, of damage to the lungs and of superimposed infection.

SECONDARY VASCULAR CHANGES

Galbraith's and Steinberg's beautiful experiments showed that bronchial obstruction with associated interference with respiratory movements lead to marked secondary vascular changes especially congestion, stasis, edema and transudation. Kernan and Barach emphasized the importance of these circulatory effects and concluded that "as a result of the continued obstruction and the elevated negative pressure in the chest, blood enters the right chamber of the heart and lungs more freely, but it is retarded in its departure from the lungs into the left heart as a result of the backward suction pressure on the left ventricle as it delivers blood into the extra thoracic aorta. The elevated negative pressure within the chest exercises suction on the capillary walls which is the important factor in the production of intra-alveolar exudate." Air absorption they believe then leads to atelectasis; and giving way of alveolar walls damaged by rupture of their vessels leads to emphysema. Increasingly greater respiratory effort keeps up a vicious circle.

It would seem from a study of the above and other work that the important factors in this and similar conditions are the mechanical ones of high obstruction and secondary vascular changes, and superimposed infection. The original infecting organism of which a variety have been reported seems less important, though at Cook County Children's Hospital in a recent series carefully studied, green forming streptococci strongly predominated, and Bradford and Leahy⁸ with a careful plating technique found this same organism predominating with less than 5 per cent of hemolytic streptococci in most cultures. The tissue reaction and sticky exudates seen clinically in tracheobronchitis would accord with that of streptococcus viridans.

It may even be that in obstructive disease the picture can be much the same without preliminary infection, although with atelectasis there is uniformly superimposed infection and pneumonitis which if unrelieved may go on to focal necrosis, abscess and later bronchiectasis, as Galbraith and Steinberg found when bronchial obstruction was produced in healthy dogs. In six

cases of flame injury which I have seen where the primary injury was mechanical, the clinical and bronchoscopic picture was not much different from that of acute infectious tracheobronchitis.

To sum up the pathogenesis of tracheobronchitis, it seems to me that this description I gave last year is fairly accurate. "An infection involves the larynx and subglottic tissues and congestion and edema lead to nearly enough complete obstruction to raise the negative intrathoracic pressure with added congestion and capillary damage. Then thick exudate blocks bronchi or bronchioles whose walls are already swollen. As spreading secretion blocks the regional bronchioles, the interlobular tracts are cut off, air in the alveoli becomes absorbed, the dependent portions tend to become atelectatic, and the overlying ones may become emphysematous. Infection and local circulatory changes add to the exudate, to absorption of air, to atelectasis and emphysema and put out of commission more lung bed and further embarrass the heart."

In view of recent work on experimental pneumonia, it would seem that secondary to blocking with exudate a wide variety of secondary effects can follow. Nungester and Jourdonais⁹ found it was easy to produce experimental pneumonia in dogs only if organisms were introduced protected by mucin from the action of phagocytes. Loeschke¹⁰ considered from a study of human material that infection in pneumonia was spread chiefly by the flow of exudate. Piness and Friedman¹¹ believe that the plugs found so commonly in allergic patients were responsible for atelectasis and later bronchiectasis. As previously stated, Galbraith's and Steinberg's experimental animals showed, after unrelieved bronchial obstruction, atelectasis, secondary pneumonitis, focal necrosis, lung abscess and later bronchiectasis. Anspach's¹² roentgenologic studies disclosed that many patients with bronchiectasis had previously the wedge shadows of atelectasis. It does seem not unlikely that secondary to unrecognized bronchial or higher obstruction, or to delayed treatment of such condition a wide range of diseases may follow varying from so-called atypical pneumonias to lung abscess and bronchiectasis.

This detail has been given to show that the problem is not one simply of blocked airway and anoxemia, but that grave progressive and irreversible changes may at any time supervene, and then any treatment may be unsuccessful.

Of course, rest, fluids, and oxygen therapy are successful in relieving the majority of these cases. But, if these do not give relief, tracheotomy (or intubation) are to be done without delay. They are frequently postponed too long to the point of marked cyanosis and rapid pulse which may mean imminent heart failure.

The mortality has always been high in this disease averaging for large series of cases around 70 per cent with some series as low as 33 per cent. With a treatment based on the preceding ideas I have in the last five years had some 14 cases in private practice requiring tracheotomy with two deaths, a mortality of about 15 per cent. These cases were favorable as they were referred early by alert pediatricians, and the statistics would be much less favorable if patients were included from a large charity service where patients came late and where constant personal attendance was not possible. Treatment has been as outlined below:

1. Rest—physical and mental—so that minimum oxygen is required.
2. No opiates or atropine.
3. Oxygen by catheter, hood or tent. It is better given with helium with moderate positive pressure according to the principles of Barach and Kernan.
4. Fluids by mouth and parenterally to relieve dehydration and liquefy secretions.
5. Moisture saturated air, especially after tracheotomy to lessen or prevent crusting.
6. Tracheotomy or rarely intubation; not delayed if the foregoing procedures do not soon give relief.
7. Postural drainage and aspiration.
8. Postural irrigation if secretion, plugs or crusts cause blocking.
9. Bronchoscopic removal of crusts if necessary.
10. Expectorants are questionable. Water parenterally is the best, but three grain doses of iodides seem to help.

The reasons for most of the above are obvious. Opiates lower the struggle for air and the margin is so narrow that unless the patient uses all his power to get oxygen he will soon be overwhelmed. Atropine thickens the already sticky secretions and it was found at the Children's Memorial Hospital a few years ago that no child recovered from this disease when atropine had been given.

Oxygen is invaluable. If it brings any measure of relief and progressive improvement, treatment should be expectant, and most patients will recover without cannulation. If, however, the battle proves a losing one, intervention must not be postponed until general and cardiac exhaustion have passed the possibility of recovery, nor until the secondary changes are irreversible. Kernan and Myerson have emphasized the value of giving oxygen with positive pressure.

The indications for tracheotomy are:

1. Impending asphyxia.
2. Threat of cardiac or general exhaustion.
3. Marked and persistent retraction unrelieved by oxygen.
4. Cyanosis and rapid pulse which are often all signs of imminent heart failure, and especially gray cyanosis.

There has been much discussion of the relative value of intubation and tracheotomy. In diphtheria there seems to be little doubt that intubation is the treatment of choice. It must, however, be done by an expert, and an expert must at any time be available to reinsert the tube which may be coughed out. It is better done under direct laryngoscopy with aspiration of secretions and membrane which may even obviate the necessity for it.

For all other obstructions it seems to this writer that tracheotomy is preferable. It is more certain for the occasional operator. It puts the larynx at rest and allows its earlier return to normal. It permits suction through the tube with irrigation; and plug and crust removal and bronchoscopy can be easily done through the wound as is often necessary. With tracheotomy crust formation is increased, but that can largely be prevented if the atmosphere is kept at Jackson's dew point. Preliminary to tracheotomy, bronchoscopy for aspiration and inspection of the mucosa should be done. With the tube in place the patient is usually relieved, the tracheotomy can be deliberate and when one has done tracheotomies over the bronchoscope, he is not likely by choice to do it otherwise. The Mosher life saver is also of considerable value as a preliminary to tracheotomy.

POSTURAL DRAINAGE

Though little has been written about postural drainage it is extensively used by chest surgeons. In tracheobronchitis it seems to have been neglected, though theoretical considerations suggest its great value which has been borne out in my experience. Here the usual protective mechanism fails, secretion not being moved by cough, tussive squeeze or ciliary action. If a real gradient for drainage is maintained, secretion will not accumulate low in the tracheobronchial tree where cough reflex is absent, and its expulsive force slight, and, as Hill¹³ showed, even impaired cilia will be able to move it twice as easily with the help of gravity. If plugs or crusts form, they will collect nearer the tracheotomy wound where they can be removed by suction irrigation or bronchoscopy.

Irrigation is well tolerated by the bronchi as Stitt¹⁴ and Minter¹⁵ showed and by its use the removal of plugs is much simpler and more effective as a rule than by the bronchoscope. I have used 4 to 15 cc. of 3 to 5 per cent soda bicarbonate instilled during inspiration with the patient turned on the side which the stethoscope shows blocked. Vigorous coughing churns this over plugs or crusts which are loosened and expelled or removed with suction. Normal saline is then used to wash out the soda. Occasionally 1:10,000 adrenalin in small amounts is also instilled to reduce turgescence. Such treatment

must be closely supervised, but much of it can be left to a good resident or intern and nurse.

This condition discussed in detail varies from other obstructive respiratory disease because it occurs in younger patients and because there is from the beginning associated infection. But it seems to me that the condition is primarily mechanical and that as in experimental work cited, if obstruction is marked and prolonged, infection is likely to be superimposed. The severity of the secondary effects will vary inversely with the age of the patient and is, of course, much less likely to be so serious in the older child or adult.

For instance, in some six cases I have seen of flame injury to the respiratory tract the end picture on top of first or second degree burns was hardly distinguishable from that of acute infectious tracheobronchitis. The treatment probably should be almost the same. Such cases probably are often overlooked because of associated serious injury. Livingston has reported four of these cases which were suffering from marked carbon monoxide poisoning to the effects of which all of the symptoms could easily have been ascribed. The other two cases I saw were due to inhaling flaming gas in auto accidents and the picture was clouded by head injury.

It must be remembered in doing tracheotomy in such cases that a depressed respiratory center may be functioning only under the strong stimulus of accumulated carbon dioxide and its changed pH, and that either the full current of air must not be allowed to rush in too quickly or that carbon dioxide inhalation must be instantly available. One patient was very cyanotic, but when the trachea was freely opened, took about ten deep breaths, became rosy pink, stopped breathing abruptly and could not be again stimulated to breathe. At autopsy a basal skull fracture with a large hematoma explained the depressed center, which apparently needed abnormally high CO₂ stimulation and could not so quickly adjust itself to full oxygenation. As Negus¹⁶ has explained the mechanism as follows:

"For the time being the acid base ratio is upset. The percentage of free CO₂ present as carbonic acid is suddenly lowered, while that fixed as bicarbonate remains stationary. The arterial blood has become so alkaline that the respiratory center no longer receives the necessary stimulation. This time of danger during which excess of alkalis is fixing too much of the available CO₂ may extend over some hours."

The remedy, of course, is the inhalation of CO₂ and a cylinder of this gas should be at hand when a tracheotomy is done.

As a corollary of this, the need of tracheotomy is indicated by a rise of the CO₂ in arterial blood from its normal of 5.6 per cent—certainly when it rises to levels of 7 to 8 per cent. Darrow has

suggested the determination of the blood CO₂ to convince a reluctant consultant of the need of intervention.

CONCLUSIONS

1. In laryngeal obstruction relief of asphyxia is the most immediate problem.
2. Persisting obstruction leads to marked changes secondary to increased negative intrathoracic pressure.
3. These are congestion, edema, exudate or hemorrhage, atelectasis and emphysema.
4. Superimposed infection may lead to atypical pneumonia, pneumonitis, lung abscess or bronchiectasis.
5. Intervention must not be delayed until these irreversible changes are established.
6. Postural drainage and irrigation are valuable aids after tracheotomy.

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The routine use of the tuberculin test in prenatal care can be easily used in clinics and private practice for discovery of active tuberculosis. Unsuspected active tuberculosis occurred in 1.7 per cent of those tested in one county in California where the early institution of collapse therapy prevented extension of the pulmonary disease.—Ianne, Charles, *Amer. Rev. of Tuber.*, Dec., 1939.

Diabetes Mellitus

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DIABETES mellitus is a disease in which the metabolism of the carbohydrates, proteins, and fats is disturbed. This disturbed metabolism results in an increased amount of sugar in the blood and in the excretion of sugar into the urine.

ETIOLOGY

Although during the period of modern investigation the pancreas has rightly held the center of the stage in any consideration of diabetes, there are many facts, clinical and experimental, which point to the part played by other influences in the origin and course of this disease. Among these may be mentioned the influences of heredity, obesity, and of endocrine glands other than the pancreas.

Joslin¹ has found that 25.6 percent of his patients have hereditary backgrounds of diabetes. The actual percentage is likely much higher. White¹ tells us that when two diabetics marry 100 percent of their offspring will develop diabetes; and that when a diabetic marries a non-diabetic carrier, 50 percent of their children will develop the disease. From these facts, we can conclude that heredity plays an important part in the development of diabetes.

Diabetes is eight times as common among patients who are 25 percent or more overweight.² From his study of a group of obese people, Kisch³ found that 50 percent were glycosuric. Poullin and Sauls,⁴ studying dextrose tolerance curves in 26 obese patients, found that 58 percent had abnormally high curves. Newburgh and Conn⁵ corrected hyperglycemia in approximately 90 percent of a large group of obese patients when they reduced their weight by simple underfeeding. This abnormal carbohydrate metabolism is thought by them to depend upon impaired glycogen storage in the liver, due in turn to excessive accumulation of fat. No doubt all of us have been impressed by the improvement of diabetic patients who have lost weight.

Endocrine disturbances and their relation to diabetes are a relatively new field in medicine. Young of England⁶ has made an outstanding contribution to this field. He, for the first time, successfully produced permanent diabetes in normal dogs by injecting large doses of anterior pituitary extract. However, as Wilder² pointed out, enough anterior pituitary extract cannot be produced by

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a pathologic pituitary gland to cause diabetes in man.

White⁷ states that 87 percent of 303 diabetic children were overweight prior to the onset of the disease.

Hyperthyroid diabetic patients who undergo subtotal thyroidectomies often show marked improvement in their diabetes.

Parenthetically, it may be stated here that while infection cannot be considered an etiological factor in diabetes, it is true that it often precipitates an acute flareup of an already existing diabetic condition.

DIAGNOSIS

Too much emphasis cannot be placed on the correct procedure for diagnosing diabetes mellitus. Joslin¹ would have us consider every patient with glycosuria a diabetic until proved otherwise. He has found that approximately 85 percent of all glycosurias in his adult patients have diabetes as their basis; the remaining 15 percent, or one out of every six cases, are benign.¹ Durkin and Fetter⁸ found 80 percent of a group of children having pronounced glycosuria to be true diabetics.

Grave error can result, however, from basing diagnoses on urine findings alone. I have seen malnourishment existing in non-diabetic patients because their physicians, on finding sugar in their urine, placed them on restricted diets. Blood sugar determinations must be made for a positive diagnosis. This is the second step in the diagnosis of diabetes and I cannot overemphasize its importance. Today with the modern laboratory at our disposal, there is no excuse for neglecting it. If one remembers that the onset of diabetes most commonly occurs in the fifth decade of life and that probably only one in 2500 develops the disease before the age of 15, one is less likely to make a hasty and sometimes incorrect diagnosis before the laboratory work is carried out.

Joslin⁹ and his group have reviewed all the cases which have been under their care with a

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Acknowledgment: I am grateful to Doctor Alexander Marble of the Joslin clinic who assisted me by reading this paper.

view to establishing criteria for diagnosing diabetes. Here are the standards they set down:

A positive diagnosis of diabetes mellitus may be made when one finds a fasting blood sugar of 130 mgs. percent or above, with sugar in the urine; or a postprandial blood sugar of 170 mgs. percent or above, one hour after a meal. In hyperthyroid patients or with capillary blood, Joslin believes that a reading of 200 is necessary.

Occasionally a border line case is found and then it is necessary to carry out a glucose tolerance test. The patient is given 100 gms. of glucose on a fasting stomach. Venous blood sugar examinations are made one-half hour, one hour, two hours, and occasionally three hours afterwards.

One should always remember that it is possible to get a false positive test on a patient whose diet has been restricted in carbohydrate, because such a diet lowers the tolerance of the patient for glucose.¹⁰ In such a case the patient should be placed on a free carbohydrate diet for a week or more and then given a glucose tolerance test.

Fewer mistakes will be made if a postprandial blood sugar is taken instead of a fasting one, for there are those patients who have a normal fasting blood sugar but show definite evidence of diabetes if the blood sugar is taken one hour following a meal. This is especially true of the young, new and the old, mild diabetics.

SYMPTOMATOLOGY

Every physician is well acquainted with the symptomatology of the patient with uncontrolled diabetes, briefly: polyuria, polydipsia, polyphagia, loss of strength and weight, impaired vision, neuritis, and pruritus. All or none of these symptoms may be present at the onset of the disease. Many of these patients are discovered quite by accident in routine checkups and are surprised to learn they have diabetes. Joslin¹ has warned against placing too much emphasis on symptomatology in arriving at a diagnosis.

TREATMENT

Treatment may be divided into four headings: (1) education, (2) diet, (3) exercise, and (4) insulin.

Education is becoming more significant every day. The diabetic physician affords us the best example of its value in the treatment of the disease.¹ The mortality rate among physicians is much lower than that of other patients of the same age. From comparative groups it has been established that only one physician as compared to four lay people die of the disease.¹

Diet is one of the most important factors in good diabetic control and probably one of the most neglected principles in the treatment of the diabetic patient. A diet, to be successful, should be a positive quantitative diet and not a negative one, as it so often is. Most diabetics will get along

well on 25 calories per kilogram body weight per day. However, one may for obvious reasons (for malnourishment, for a laborer or growing child, in pregnancy, and in hyperthyroidism) want to increase the total caloric intake to 30 to 40 calories per kilogram body weight. In most cases, however, we are more interested in reducing the patient's weight, so we give as few as 20 calories per kilogram correct body weight. Today, most diabetic diets contain 150-200 grams of carbohydrate, one gram of protein per kilogram body weight and the remaining calories are made up of fat. The carbohydrate in the diet is often distributed equally among the three meals. However, I prefer the 1/5, 2/5, 2/5 distribution. Children are given 10-15 grams of carbohydrate between meals, and patients on protamine zinc insulin are given a 10 P.M. feeding of milk or crackers (or some other carbohydrate which will be slowly digested), to guard against early morning insulin reactions.

Exercise benefits the diabetic who is under good control, because it aids him in assimilating carbohydrate.

In severe diabetics, insulin should be given from the beginning, but in the mild case one may try the effect of a restricted diet for a week before deciding whether insulin is indicated. For severe diabetics, generally children, an extra dose of regular or crystalline insulin is given along with protamine zinc insulin, 20 minutes before breakfast.

Following are figures compiled from a study of 70 diabetic patients seen in my office and in the diabetic clinic of the Springfield City Hospital in the past 18 months, who are known to be under good diabetic control: 24 percent get along on diet alone; 63 percent need one dose of protamine zinc insulin daily; and 12 percent need both protamine and crystalline zinc insulin daily. The average age for the group is 50.7 years.

Every physician who treats diabetes is sooner or later confronted with the question: What constitutes good diabetic control? I believe three things are essential: (1) good chemical control, (2) maintenance of a normal body weight or one slightly below normal, (3) a realization of the complications of the disease and their prevention.

Chemical control is one of the most trustworthy gauges we have in following the progress of our patients. Dr. Anthony Sindoni, Jr.,¹⁰ in a recent article in the *Journal, A.M.A.*, entitled, "Blood Sugar Versus Urine Sugar", has pointed out several interesting facts. He states that the presence of sugar in the urine is dependent upon the efficiency of the renal tubular mechanism and upon the blood sugar level. He also emphasizes the fact that many patients with high blood sugars pass less dextrose in their urine than those with lower sugar levels. To be accurate then, one must con-

sider both blood and urine sugar in following the control of patients.

Joslin¹¹ concedes that the patient may excrete in the urine as much as 10 percent of the total amount of carbohydrate ingested and still be under satisfactory control. Actually, however, most of his patients are under much better control than this. I like to have the blood sugar not exceed 180 mgs. percent during the day and the fasting blood sugar slightly above normal. All evidence of acidosis should be absent. If we maintain these standards, we may be assured that our patient is under excellent chemical control.

It is often difficult to maintain a normal body weight in the diabetic patient. One prefers to see the weight of the normal diabetic patient past the age of 35, 10 percent below normal. In no instance do we like to see the diabetic patient overweight.

Diabetes has long been known as a disease with many complications, and diabetic control is imperfect unless these complications are prevented or kept at a minimum.

One of the most common complications that confronts the physician is that of arteriosclerosis. It has been shown that this complication develops more rapidly in the poorly controlled diabetic patient who has had his disease for five years or more.¹ It is estimated that one half of all the diabetics living today will die of occlusive vascular disease. The type of arteriosclerosis found in diabetics differs from that of Mönckeberg's sclerosis in that it attacks the intima and has a tendency to involve the blood vessels of the heart and lower extremities rather than those of the brain and kidneys.⁸

Root and Sharkey¹² have shown that 40 percent of their diabetic patients autopsied showed advanced coronary sclerosis with occlusion. Root¹³ later pointed out that in the cases he studied, coronary thrombosis occurred four times more frequently among diabetics and that it had no predilection for male or female as contrasted with its nature among non-diabetics.

Coma is a preventable major emergency and is still the chief cause of death in diabetic children. In searching for the cause of diabetic coma, it is well to recall that, by far, not all of the cases are produced by diet indiscretion or insufficient insulin, but a considerable number are brought on by infection. In a study made by Rabinowitch, Fowler, and Bensley, it was found that 80 percent of the coma cases were brought on by infection.¹⁴ Root¹⁵ has shown that one out of every eight cases of diabetic coma develops tuberculosis and for this reason it is well to X-ray every case of coma yearly.

Septicemia is quite a common complication associating itself with infection of the lower extremities (gangrene) and carbuncles. Every diabetic with an infection should have repeated blood

cultures so that this complication may be detected and treated in its incipency.

Root¹ has stated that every other diabetic will come to surgery before he dies. Most surgeons today are agreed that to obtain the best end results, the surgeon and the internist must work together in close harmony.

The abdominal symptoms of acidosis and acute appendicitis might be confused. There are several points of differentiation. First, there is generally a history of nausea and vomiting preceding the pain of acidosis. Secondly, if the pain is due to acidosis, it is generally diffuse and not localized over McBurney's point. Thirdly, the pain will disappear in a few hours if large amounts of saline and insulin are given.

Peripheral circulatory collapse is a complication that may follow a general anesthetic or an operation performed on a patient too recently recovered from acidosis. Dehydration, hypernea, and cooling of the body are responsible for the condition. This complication can be prevented through the proper administration of fluids, blood transfusions, and by keeping the patient warm.¹⁶

The obstetrician is still confronted with a high infant mortality in spite of the introduction of insulin. Today a diabetic woman can be carried through pregnancy with comparative safety, but 38 percent of the infants die as compared with 44 percent in the preinsulin era. These facts are discouraging; but the obstetrician has been given a new ray of hope through the work of Doctors White, Titus, and Joslin, published under the title, "Prediction and Prevention of Late Pregnancy Accidents in Diabetes", in the *American Journal of Medical Science*, October, 1939. These doctors have been able to predict pre-eclampsia some four to six weeks before it occurs by discovering abnormally high values for serum prolactin. (The normal is 200 rat units per 100cc of blood.) Pre-eclampsia can be prevented by substitutional therapy. (Estrin 150,000 — 300,000 international units and progesterin, 10-20 mgs. daily.) Out of nine pregnant women treated in this manner, only one lost her infant and in this patient therapy had been discontinued. Toxemia of pregnancy should always be looked for, especially in the last trimester because its duration may be less than 48 hours and with the death of the infant, it immediately disappears.

In conclusion, I should like to quote a statement of Dr. Joslin's which expresses very well a challenge to us all. He has said, "There is nearly enough knowledge today for the adequate treatment of diabetes, but it needs more general and more intensive application and a development in the patient of a deeper sense of his own responsibility for his care. Coma should be abolished, gangrene halved, tuberculosis prevented, pregnancy in suitable cases made safe, and the aver-

age duration of the disease raised above 20 years, the ultimate goal being the avoidance of death in any way due to the disease."¹

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Single Trauma as an Etiological Factor in Carcinoma

In the third edition of "Neoplastic Diseases," Ewing devotes a chapter to the special etiology of tumors; he quotes Sebestyen: "Most traumatic sarcomas arise from the bone, usually after single trauma." He discusses the various forms of trauma in the arguments pro and con closing with the paragraph: "There is urgent need of a judicial investigation from the clinical side of the whole subject of the relation of trauma to tumors."

In recent years, Dr. Ewing has assumed a skeptical attitude to the relationship of trauma to malignancy, yet in his paper before the Academy of Medicine in May, 1935, he does admit the possibility of a single trauma as a precipitating cause when the bridging symptoms between the injury and the appearance of the cancer are continuous and progressive.

The histological structure of a cancer but not

its actual cause is known. The one characteristic of tumors which can be recognized generally is the theory of cell-autonomy or independent growth which is unlimited and uncontrolled. Normal cells are under control. What causes the mass of cells in a tumor formation to run riot? Evidently something starts the cells which cause the tumor to proliferate just as a spermatozoon influences an ovum. One of the most striking factors developed in experimental research is the action of coal tar products in the formation of tumors. Is the tumor the result of the coal tar or some other unknown quantity? Yamagiwa and Ichikawa made from 55 to 360 daily applications before they succeeded in producing eight tumors. Yet the fact that cancer can be produced by such substances is accepted although the exact mode of action of these highly cancerigenic coal tar products has not been traced but is probably indirect according to Ewing. In all these experiments the positive fact of injury arises; not once but repeatedly. If it varies in such wide degree, why would it not be possible for a single injury to produce the same result? We have under our care a patient in whom a single burn from tar on the nose resulted in cancer. There is an editorial in the 1933 *American Journal of Cancer* on "Synthetic Cancer" which is pertinent to this subject. In discussion of the effect of isoprene, anthracene, dibenzanthracene, benzpyrene, dibenzpyrene, there is a significant paragraph: "It will be interesting also to see if small quantities of these substances can turn a normal cell growing in vitro into a cancer cell. Probably this will not take place for evidence is accumulating to confirm the opinion of Ehrlich and many other workers of 25 to 30 years ago that the production of cancer is due merely to irritation of some sort, and then in due course of time, some cell by a type of somatic mutation gains the power to grow into tissues without being destroyed as is the normal cell when it wanders. As soon as this occurs, a cancer is present."—W. E. Leighton, M.D., and E. C. Schmidtke, M.D.; St. Louis; Jr. Mo. S. Med. Assn.; Vol. 37, No. 7, July, 1940.

In a survey of conditions in 17 cement plants located in various parts of the United States, it was found that the incidence of tuberculosis and other chronic infections of the lungs was less among the employees than in the general population. The manifestations of tuberculosis occurred in typical form and at the same age periods as in persons not exposed to dust by occupation. It was concluded that prolonged inhalation of cement has no unfavorable influence upon susceptibility to tuberculosis infection or upon its subsequent evolution.—Leroy U. Gardner, M.D.; Jour. of Industrial Hyg. and Toxicology, Sept., 1939.

Acute Surgical Diseases of the Abdomen in Children

M. TISCHER HOERNER, M.D., Ph.D., F.A.C.S.

THE acute surgical diseases encountered in childhood differ from the common acute conditions from which adults suffer. Not only do children suffer from different types of ailments, but the same illnesses may not manifest themselves in the same manner as in adults, and the treatment required may vary. For these reasons, the surgeon who deals with young individuals should possess a basic knowledge of pediatrics. Sympathy, tact, patience, firmness and gentleness are primary considerations in the management of the ill child. Too often a hasty, superficial examination is made because the patient is not old enough to make himself understood and is frightened and uncooperative.

Attempting to make a diagnosis in children is often a difficult and tedious process. When a history is obtainable, it should be as thorough as possible. Details derived from relatives must be sifted carefully, since in their anxiety for the patient their statements are apt to be misleading. If thoughtfulness and delicacy are employed, a complete, informative examination can usually be made. Keen observation and intelligent reasoning must be utilized while conducting the investigation, for the few signs and symptoms exhibited by the child may be the only evidence upon which a diagnosis can be based. It can readily be seen that close cooperation between the family physician or the pediatrician and the surgeon is essential.

GENERAL CONSIDERATIONS

Experience has demonstrated that a rather definite relationship exists between the age of the child and the acute abdominal lesion from which he is suffering. Persistent vomiting during the first few weeks of life suggests the presence of congenital hypertrophy of the musculature of the pyloric ring. Intussusception is common in infants between 6 and 24 months of age. Acute appendicitis, one of the most common lesions in persons of all ages, is rare before the age of one year. The greatest incidence of pneumococcic peritonitis seems to be between the fourth and the tenth years. Peculiarly enough the sex of the child also has been found to be of some significance in diagnosis. For example, congenital hypertrophy of the pyloric muscle and intussusception are more common in boys, while pneumococcic peritonitis occurs more frequently in girls.

When a child is apparently suffering from an acute abdominal disease, it is essential to estab-

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lish whether the pathologic condition is truly abdominal in origin, and if it is, whether prompt surgical intervention is required, or whether the symptoms are referred to the abdomen from some other part of the body. Occasionally, acute tonsillitis is accompanied by abdominal pain as well as by fever and vomiting. These signs and symptoms when sufficiently prominent may be disconcerting. In an adult, lobar pneumonia will rarely be mistaken for intra-abdominal disease, but in children differentiation becomes more and more difficult the younger the infant. Diaphragmatic pleurisy is not easy to distinguish from peritoneal irritation, especially in young individuals. While both of the latter conditions give rise to referred abdominal pain and even rigidity, the local tenderness and rigidity associated with peritonitis is usually more marked and definite.

Typical cases of pyelitis are not difficult to differentiate from intra-abdominal disease, but in many instances atypical manifestations are exhibited. These are apt to add to the confusion if the two conditions occur together. Moreover, it is common to encounter patients suffering from acute appendicitis who have revealed all the signs and symptoms of pyelitis. Acute lesions of the spine or hip also may produce evidence suggestive of abdominal disease but usually these conditions can be identified by physical and roentgenologic examinations.

On the other hand, there is a common medical condition, arising in the abdomen, which is apt to be perplexing when an attempt is being made to determine whether surgical treatment is necessary. During an epidemic of this disease, namely, "enteritis", "entero-colitis", or so-called "abdominal influenza", or "intestinal flu", any abdominal complaint is likely to be labeled with one of these terms until further developments make such a diagnosis untenable. All of these facts emphasize the importance of a thorough examination before arriving at definite conclusions. Too many

children have died from overwhelming peritonitis following perforation of a gangrenous appendix because a diagnosis of "intestinal flu" was made after hasty and superficial examination.

DIAGNOSIS

When all available information is at hand, the history should receive special consideration. The character of the onset of the illness is important and may be diagnostic, as in cases of intussusception. The relationship between the time of onset and the development of the physical signs should be carefully estimated. If the child has been vomiting and has had abdominal pain for several days and physical examination reveals little evidence of distention or rigidity, the condition is not likely to require surgical intervention. A history of persistent pain followed by nausea or vomiting and associated with a rising pulse rate and diminished peristalsis should direct attention to the necessity for surgical treatment. On the other hand, when the nausea and vomiting precede the pain and the other symptoms just described, and when diarrhea is present, the patient is more apt to need medical therapy, unless intussusception is present. The diagnosis is made by fitting together the pattern formed by the history, symptoms, physical signs and laboratory aids. Then after weighing each fact in the balance of experience and judgment the nature of the disease is determined and appropriate treatment is instituted. Needless to say, no one is infallible in diagnosis, particularly in children. It is always well to remember, however, that delay in performing operation in the hope of making a complete diagnosis may have serious consequences.

ACUTE APPENDICITIS

Statistics reveal that the appendix is responsible for the great majority of acute abdominal conditions, since 90 per cent of the cases of acute abdominal disease in children under 10 years of age and 75 per cent of the cases in adults are due to acute appendicitis. There is no age limit to appendicitis, several cases having been recorded in babies 48 hours old. However, the incidence of the disease increases with age, reaching a peak in the second decade of life.

Acute appendicitis in children is notorious for the rapidity with which the disease progresses. There is evidence to show that acute appendicitis is not at all times the same condition.¹ When appendicitis is coincident with, or immediately subsequent to, upper respiratory or other acute infections, the inflammation is usually hematogenous in origin and frequently due to the streptococcus. In these instances, there is often an explosive acute suppurative process present involving the entire wall with extensive areas of necrosis and hemorrhage. Early perforation, followed by generalized peritonitis, is the rule. This type of the disease is ushered in with symptoms

of unusual severity. As a rule the attack is the first of its kind. These observations might explain the occurrence of epidemics of acute appendicitis, particularly in the autumn and winter months. If the lumen of the appendix is obstructed by fecaliths, kinks, adhesions or foreign bodies, gangrene and perforation may occur early in the course of the disease because the blood supply to a portion of the organ has been interrupted and infarction occurs. Occasionally, the initial symptoms may not be marked, but may be initiated by attacks of colic-like pain. In contrast with streptococcal infection, the pathological process progresses rather slowly when injury to the mucosa results in invasion of the appendix by organisms of the colon bacillus type. If perforation does occur in such cases there is a tendency for a localized abscess to develop rather than spreading peritonitis. Such a patient usually presents those signs and symptoms which one ordinarily associates with the text-book descriptions of appendicitis and he often gives a history of similar attacks.

A. Diagnosis—The establishment of the diagnosis of appendicitis in children is usually more difficult than it is in adults because of the inability to obtain an accurate history and the lack of full cooperation on the part of the patient. The classical signs and symptoms of the disease, such as generalized abdominal pain, nausea or vomiting, the shifting of the pain to the right lower quadrant in four to six hours, the rise in temperature, leukocytosis, and localized tenderness and rigidity, scarcely need to be reiterated. Appendicitis manifests itself in much the same way in children, but one has to depend more on the cardinal symptom of pain and fundamental sign of localized tenderness. If all children suffering from appendicitis conformed to the pattern just described, the diagnosis would not be difficult. But in many instances the clinical picture is distinctly atypical. There may be few or no anterior abdominal signs, little pain, slight nausea, no vomiting, a high or low temperature, and varying degrees of leukocytosis or even leukopenia. Tenderness will usually vary with the location of the appendix. It may be encountered under the liver when the cecum has not descended and arouse suspicion of hepatic or diaphragmatic inflammation. When the appendix is retrocecal the pain and tenderness may be elicited in the region of the right kidney, suggesting pyelitis or other renal pathology. The presence of blood in the urine adds to the confusion. If the inflamed organ lies low in the pelvis, the pain will be felt centrally. There is often dysuria, resulting from irritation of the bladder, or an ineffectual diarrhea originating from sigmoidal or rectal involvement. Perhaps the most disconcerting finding is that in which the pain occurs only in the left side of the abdomen. This is sometimes due to a retroperitoneal appendix or to one attached to a long mesentery

which extends across the midline. In a few instances the pain is referred to the left side without adequate explanation.

B. Differential Diagnosis—Regardless of how careful the investigation may be or how thorough the examination, mistakes in diagnosis are sometimes inevitable. No one is justified in criticizing a surgeon for removing a normal appendix, if the symptoms were suggestive of appendicitis and the diagnosis, although incorrect, was made within the time limits of safety. In view of the tragic consequences which might result from prolonged delay, particularly if there has been a history of catharsis, early operation is imperative. Bastianelli² explained the situation very aptly by stating: "When physicians are discussing whether a case is appendicitis or not, it is; when they are inclined to admit the possibility of appendicitis without being sure of it, it not only is, but is already perforated with more or less circumscribed peritonitis."

The condition which is most frequently mistaken for acute appendicitis is acute mesenteric lymphadenitis following upper respiratory infection. The infective organisms presumably are swallowed, pass through the intact mucosa, enter the lymphatic channels and produce inflammation of the mesenteric nodes, which are particularly numerous in the ileocecal region. The signs and symptoms may exactly simulate those of acute appendicitis and there is no certain way to differentiate between the two conditions.

The symptoms and signs of food poisoning may imitate those of acute appendicitis. The products of many micro-organisms have been found to cause intestinal upsets. These attacks are usually ushered in by violent vomiting and diarrhea, associated with abdominal pain. Localized tenderness is rare. The tenderness often follows the course of the colon. When diarrhea is the first symptom or when nausea and vomiting precede pain, the patient is not likely to be suffering from acute appendicitis. However, as in all generalizations, there are exceptions. In such instances, the physical findings may provide the deciding evidence.

Acute primary peritonitis is extremely difficult to differentiate from acute appendicitis complicated by perforation and peritonitis. These obscure infections are by no means confined to female children, although the vagina and fallopian tubes are frequent portals of entry. However, the patient is sicker from the onset; the fever is higher; the abdominal signs are more generalized; and diarrhea is more apt to be associated with primary peritonitis than it is with appendicitis. It is evident that the manifestations of the disease are not distinctive and in some instances the diagnosis can not be made until the character of the peritoneal exudate is investigated.

The early symptoms of acute tonsillitis, lobar

pneumonia, diaphragmatic pleurisy, renal pathology, and acute lesions of the spine and hip may be largely abdominal. The differentiation of these conditions has already been considered.

C. Treatment—When the inflammatory process is confined to the appendix, there is universal agreement that the only form of treatment advisable is immediate removal of the diseased organ. If this procedure is adhered to, the mortality rate from appendicitis is negligible. The few deaths that do occur are caused by some uncontrollable factor, such as pulmonary embolus, which hazard exists following any major surgical undertaking.

If the appendix has ruptured and a localized inflammatory mass is found on initial examination, it appears logical not to interfere with the defensive mechanisms of the body which come into play in walling off the infection before operation is performed. This may result in a short delay, but when the abscess is drained through a small incision, there is less likelihood of contaminating the entire peritoneal cavity. It is always a temptation, when draining an appendiceal abscess, to remove the offending organ at the same time. If the appendix is easily exposed after evacuation of the pus, it can usually be removed before closing the wound, without undue risk. But if the appendix is not readily accessible and if its exposure necessitates the breaking down of protective barriers about the abscess, the mortality rate has been shown to be lower if the appendix is not disturbed. In such instances appendectomy may be performed with safety from six weeks to three months later, after the acute inflammatory process has subsided.

Those instances in which the appendix ruptures early in the course of the disease, before the peritoneal cavity has had time to mobilize its defensive forces, offer a more serious problem. The physical findings tend to be of a generalized rather than of a localized nature. The acute general tenderness and rigidity suggest rapidly spreading peritonitis. While the treatment of this form of the disease has been the subject of wide controversy, there is increasing evidence to show that operation with removal of the source of infection has more to offer than conservative treatment.³ This is particularly true in children for it has been convincingly shown that they do not tolerate peritonitis nearly as well as adults.⁴ They can not endure the starvation of the Ochsner mode of therapy and it is extremely difficult to obtain the cooperation that is so essential to the success of this form of treatment.

In recent years there has been a tendency toward less and less drainage following removal of a ruptured appendix. Those ascribing to this practice believe that it is impossible to drain the entire peritoneal cavity and that the drain

acts as an irritating foreign body which hinders the natural defensive processes of the peritoneum.⁵ This may be true as far as generalized peritonitis is concerned. However, until more conclusive evidence is offered as to the efficacy of this form of treatment in the more localized types of peritonitis, I have compromised to the extent of inserting a black, soft rubber, split tube drain for a short period. Such a drain rapidly establishes a sinus tract and is the only one which encourages drainage instead of blocking it. Elevation of the drain on the third post-operative day and removal two days later eliminates the danger of the development of a fecal fistula. In cases of perforation of retrocecal appendices such drainage tends to forestall the formation of a sub-diaphragmatic abscess. The peritoneum is closed about the drain, and the rest of the wound is loosely approximated with one or two through-and-through silkworm sutures. Such a procedure minimizes the likelihood of serious infection of the wound and of the adjacent abdominal wall.³ Furthermore, the incidence of postoperative ventral hernia is less than if the wound is carefully sutured.

ACUTE INTESTINAL OBSTRUCTION

Acute intestinal obstruction is especially dangerous in children because they do not tolerate shock, dehydration or toxemia. In addition, the obstruction in young patients is frequently situated high in the intestinal tract, which makes the situation much more serious. The etiologic factors are somewhat different than in an adult. Congenital atresias, stenosis by bands, intussusception and obstruction by Meckel's diverticula are common in childhood, rare in adults. Post-operative obstruction is probably the most frequent form encountered in adults, but this is not so in children. Tumors are much rarer in the young than in adults.

A. Symptoms and Signs—The three cardinal symptoms of acute intestinal obstruction are pain, vomiting and constipation. The onset of the pain is sudden. The child often cries out and the legs are drawn up. At first the pain is colicky in character, but soon becomes constant. Early in the course of the disease the discomfort is felt in the region of the umbilicus, but when the colon is obstructed, the pain may be more marked in the lower part of the abdomen. Not infrequently, varying degrees of shock are detected at this stage of the illness.

Vomiting begins almost immediately. The frequency and persistency of the vomiting are distinguishing features of the condition. When on the third or fourth day the late sign of fecal vomiting makes its appearance, it is pathognomonic. The constipation is absolute. The administration of an enema may result in the emptying of the intestine below the obstruction together with the passage of a small amount of

flatus. This may lead to an erroneous diagnosis of incomplete intestinal obstruction.

On examination, the temperature is generally about normal, the pulse rapid and feeble, and the child appears frightened. The hernial orifices should be examined, and in the newly born infant the anus must not be overlooked. Palpation of the abdomen is of most value before distension occurs. Voluntary resistance and generalized tenderness are frequently detected at this time. Distension is a late sign of the disease and is only pronounced in low intestinal obstruction. Visible peristalsis is not common in acute obstruction. Audible peristaltic sounds of a tinkling variety at the height of the intermittent abdominal pain characterize intestinal colic.⁶ If the viability of the intestine is not impaired, there is usually no localized or rebound tenderness of the abdomen or true rigidity of the abdominal muscles. In case there is doubt as to the diagnosis, a flat plate of the abdomen or a barium enema may yield much information, but these procedures are not required ordinarily. Needless to say the barium should never be given by mouth.

B. Treatment—Success in the treatment of acute intestinal obstruction in children depends almost entirely upon the speed and accuracy with which the diagnosis is made and upon early operation, for the condition is as rapidly fatal as in adults. Saline solution given parenterally in amounts sufficient to promote a satisfactory urinary output, depending on the age of the child, is almost a specific for the dehydration and chloride-deficiency encountered in intestinal obstruction. The administration of a cathartic or morphine before a definite diagnosis has been made is distinctly contraindicated. An enema may be tried, but never a cathartic, if there is any suspicion of an acute obstruction. Pilitrin, pitressin, or prostigmin are given at times when the obstruction is incomplete, but their use is dangerous in cases of acute obstruction.

The actual operation depends on the cause of the obstruction and the vitality of the involved intestine. Unless there is definite evidence to indicate in which portion of the abdomen the obstruction is located, a paramedian incision which can be enlarged either upward or downward will give ready access to any portion of the intestinal tract. Bands or adhesions can be divided and any strangulated loop of bowel freed quite easily. If a portion of intestine appears to be no longer viable the question of resection arises. Not infrequently after the strangulation is relieved, the dark color of the bowel is found to be due to extensive hemorrhage into the wall. The prompt or gradual return of the circulation to the part can be detected in these instances and resection is not necessary. However, when resection of intestine is required, because of the high mortality of such a procedure in children, it is often best to leave the gangrenous loop outside of the

abdomen either with or without a short-circuiting lateral anastomosis.

After operation some time must elapse before the fatigued intestine can resume its tone and function. Purgatives, stimulants, and copious enemas are not required. Water should be restricted by mouth and the fluid and crystalloid balance maintained by supplementary injections of saline solution. Sedatives and morphine are helpful. Hot fomentations placed on the abdomen are comfortable and promote recovery of intestinal tone. At times, when cooperation can be obtained, the decompression can be aided by applying constant suction to a small nasal tube which has been passed into the duodenum.

HERNIA

For all practical purposes, the only external hernia which may become obstructed in children is the inguinal hernia. An irreducible inguinal hernia is not uncommon. If the patient is placed in the Trendelenburg position and an ice cap applied, the intestine may return to the abdominal cavity. At times strangulation of the bowel occurs. In such instances the child may scream from pain. Vomiting develops as well as absolute constipation. Relief of the condition by early operation is essential.

INTUSSUSCEPTION

Intussusception accounts for at least 75 per cent of all cases of acute obstruction in infancy and childhood. Although found at any age, it is commonest between the ages of six months and two years. Any portion of the intestinal tract may be involved, but the entero-colic form is encountered most frequently. The condition appears to be less common than formerly. This may be due to the greater care taken in the feeding of children during recent years.

A. Diagnosis—Ordinarily it is not difficult to make the diagnosis. A child who has previously been in good health and suddenly develops acute abdominal pain which comes on intermittently and is accompanied by shock, tenesmus, the passage of bloody mucus by rectum, the presence of a sausage-shaped abdominal tumor, and later by increasing distension and vomiting, is undoubtedly suffering from intussusception. It is important for the physician who is called first not to be misled by the healthy and happy appearance of the child between the attacks of pain. He should wait for an attack before leaving, because otherwise he may be deluded into a false sense of security and thus may delay institution of early life-saving surgical treatment.

Enterocolitis is the condition which is probably the most difficult to differentiate from intussusception during infancy. However, in this disease there is usually a preliminary diarrhea without blood; the stools contain more fecal material and are more frequent; the abdominal pain is less intense; tenderness is noted along

the course of the entire colon; and finally, there is no abdominal tumor.

B. Treatment—From time to time non-operative methods have been advocated in the treatment of intussusception.⁷ Reduction by rectal injection of either air or fluid has been employed. However, these measures are not without risk, for not only is valuable time lost if the treatment is unsuccessful, but there always remains some question whether the refractory last inch of involved intestine has been completely reduced.

Early operation,⁸ that is, within the first 24 hours, is the only method of treatment in which there is any certainty of recovery. This is due to the fact that in most instances the intestine is viable and the intussusception can be fairly easily reduced if the attempt is made within a few hours after the onset. Late operation entails grave risk with a mortality varying from 50 to 80 per cent, particularly if resection of gangrenous intestine is required. When the intestine becomes strangulated, it is thickened and friable, and reduction is extremely difficult. While many times the bowel appears to be excessively damaged, it is surprising how much recovery can take place. A glistening loop of intestine, although quite severely injured, should be replaced into the abdomen. Resection in such cases, especially in infants, is almost invariably fatal, while recovery of the damaged intestine is the rule. Excision of a Meckel's diverticulum or removal of the appendix had best be deferred. Various types of resections and short-circuiting procedures have been performed, if the intussusception is irreducible. However, if the intestine is no longer viable, it may be best to bring the mass out of the abdomen and leave a double enterostomy. Edematous, distended bowel is poor material with which to make an anastomosis. Since the operation is a life-saving measure, all other considerations are of secondary importance. From these facts it is readily discernible that the essential factor in improving the mortality rate in intussusception is a reduction of the time between the onset of symptoms and the surgical operation.

INFECTION OF THE URACHAL REMNANT

The urachal remnant is a rare source of acute abdominal infection, usually originating at or near the umbilicus. Ordinarily an abscess develops in the abdominal wall, which may appear to be intraperitoneal. Subsequent invasion of the peritoneum may occur. Early operation with drainage of the abscess is indicated. Removal of the urachal remnant should be deferred until a safer period when the acute inflammation has subsided.

MECKEL'S DIVERTICULUM

Meckel's diverticulum results from persistence of a portion of the omphalomesenteric duct. It is present in about 2 per cent of individuals and is

attached to the ileum approximately two to three feet proximal to the ileocecal valve. It often persists throughout life without producing symptoms or it may cause at any time, particularly in childhood, intestinal hemorrhage, acute inflammation, perforation, peritonitis, or intestinal obstruction. When acutely inflamed, it presents symptoms quite similar to those of appendicitis. Differentiation of the two conditions is extremely difficult except in instances where the pain from the diverticulum is located in the left iliac fossa or where there is intestinal hemorrhage. A Meckel's diverticulum must always be ruled out when a history of intestinal bleeding is obtained in a child. If the abdomen is opened because acute appendicitis is suspected, and the appendix is not found to be inflamed, the intestine should always be explored for the presence of one of these remnants. The treatment is the same as for acute appendicitis.

GALL BLADDER AND PANCREAS

Acute lesions of the gall bladder and pancreas are rare in children, but they should not be overlooked entirely. Acute cholecystitis, with or without calculi, and gangrene and perforation of the gall bladder, as well as acute pancreatitis, have been reported as occurring during childhood.

TUMORS

There are some abdominal tumors in children which may necessitate emergency treatment. While not common, ovarian masses, usually cystic in character, occasionally become twisted on their pedicle. These lesions can be felt on rectal examination and should be removed before necrosis occurs. Intestinal polyps are rather common. At times, by causing torsion or inversion of the intestine, surgical intervention is required.

Although ordinarily not classified as an acute disease, there is a pseudo-tumor of the pylorus, or in reality, hypertrophy of the pyloric muscle, which requires prompt treatment followed by operation a short time later. The congenital form, which is the type under consideration, manifests itself during the first weeks or even during the first days of life. The chief characteristics of the condition are the early development of obstinate, expulsive vomiting, visible peristalsis of the stomach, constipation and a pyloric tumor. The presence of bile in the vomitus is evidence against the existence of pyloric stenosis. Congenital lesions such as atresia of the pylorus or duodenal stricture may confuse the diagnosis, but these conditions are rare. An opaque meal may be of some aid in making these distinctions but such a procedure is rarely necessary. After combating the dehydration which is invariably present and improving the patient's general condition the Rammstedt operation offers the best chance for prompt cure.

SUMMARY

There are some acute surgical conditions frequently encountered in children which are rare in adults. Acute diseases common to both childhood and adult life may manifest themselves differently in the young and require different forms of treatment. In children, it is not unusual for pathological lesions situated in distant parts of the body first to produce referred symptoms in the abdomen. A different technic should be employed when examining young individuals. Success in diagnosis depends upon the ability of the physician to manage the patient.

There is no age limit for appendicitis. The disease in the young is notorious for the rapidity with which it progresses. Prompt diagnosis and removal of the organ before perforation occurs assures recovery. Even when rupture has taken place, eradication of the source of infection offers the best hope of a favorable outcome.

The causes of acute intestinal obstruction in children are not always the same as those found in older patients. Young individuals are unable to tolerate the shock, dehydration and toxemia which accompany the condition. The mortality is high unless immediate relief is obtained.

Intussusception is the most common surgical emergency encountered in infants under two years of age. Reduction constitutes the only safe method of treatment which assures a good chance of recovery. As this is possible only during the early stages of the disease, prompt diagnosis and immediate surgical intervention are necessary to save the child's life.

The urachal remnant and Meckel's diverticulum are uncommon sources of acute abdominal disease. Nevertheless, these structures, as well as abdominal tumors and lesions of the biliary system must be kept in mind when dealing with acute abdominal disease in children.

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Infantile Paralysis

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EXACTLY 100 years ago, Heine published the first accurate clinical description of anterior poliomyelitis. Since that time, and especially during the past 30 years, extensive study and research has been carried on, yet many of the important problems of this disease remain unsolved.

It is not a disease which contributes much to the total mortality in childhood and even in epidemics the attack rate is rarely higher than one in one thousand, but because of its ability to produce physical crippling, it is probably the most feared affliction in America.

The majority of practicing physicians see only a few cases during their whole life time, yet our patients expect, and rightly so, that we keep informed on the latest facts concerning diagnosis, prophylaxis and treatment.

The early symptoms of the disease differ very little from those in other common infections of childhood. There are no signs as constantly present as are Koplik's spots in measles. About one-half of the cases have a prodromal rise in temperature lasting one to three days. There are no characteristic signs at this time. After a drop of one to two days a second rise occurs. This fever lasts three to seven days and usually varies from 101°F to 103°F. It is during this period that the paralysis appears. The child is drowsy, often vomits and complains of headache. **Prostration is greater than the degree of fever would indicate and he seems apprehensive as though in fear of something he could not understand.** Diarrhea may be present but more often constipation. Retention of urine is not uncommon. Sweating, particularly of the head may be seen.

Cervical rigidity which seems to be more painful than that in meningitis, is present, but most important is the stiffness of the back. When asked to sit up he responds with some difficulty, rolling to the side. In the sitting position the spine is perpendicular, with the arms at the side supporting the body. **This finding and the degree of prostration previously mentioned are probably the two most important early signs.**

Further examination may reveal coarse tremors on attempted movements of the extremities, and pain on deep pressure along nerve paths. The deep reflexes are usually active early in the disease and sluggish later. The superficial

abdominal reflexes are the first to be lost. Before any paralysis can be detected "head drop" can often be demonstrated. Raising the body by the shoulders the head drops backward.

About one-half of the cases show no prodromal rise in temperature and occasionally paralysis is one of the first symptoms to appear.

The spinal fluid shows no changes during the prodromal period but in the pre-paralytic stage, the cells are increased in number varying from 15 to 500 per cu. m.m. As a rule mononuclears greatly predominate, but occasionally it may be the polymorphonuclears. The globulin is moderately increased.

True abortive cases go no further than the prodromal stage, and cannot be detected except by immunologic methods. Non-paralytic cases show symptoms as described above but do not develop paralyses. The number of abortive and non-paralytic cases can only be surmised.

Paralysis appears in the period from the second to the seventh day of fever. It involves muscles in groups that have a particular function, such as extensors, flexors, pronators. The nerves arising in the cervical and lumbar region of the spinal cord are most frequently affected. These supply the upper and lower extremities. Extension both upward and downward may occur and cranial nerve involvement is not uncommon.

Detection of paralyzed or weakened muscle groups depends on very careful examination as to function, and should be carried out as follows:

- (a) Observation of position and of involuntary movement—as sagging of one shoulder, foot drop, facial asymmetry, disparity in movement of the two sides of the chest or abdomen during respiration.
- (b) Older children will co-operate in attempting movements that bring out function of separate muscle groups, such as flexion, extension, rotation, abduction, adduction. In younger children the same results can be obtained by mildly painful stimuli, such as touching with a pin.
- (c) The eliciting of reflexes. Reflexes are variable in children and results are not reliable without a certain degree of co-operation. Repeated examinations may be necessary. A persistent unilateral discrepancy is of significance.
- (d) Palpation of the muscles. The paralyzed muscle will be flabby and lacking in tone.
- (e) Reaction to electrical stimuli. This requires a special apparatus and is restricted to hospitals or special centers.

Death in poliomyelitis is nearly always due to the involvement of nerves or nerve centers that

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are concerned with maintaining respiration. Three forms may occur, either alone or in combination:

- (a) The intercostal muscles and those of the diaphragm which are supplied by nerves coming from the cervical and upper dorsal regions of the cord.
- (b) The muscles of the pharynx, innervated from the medulla, and
- (c) the centers that control respiration—also in the medulla. The last two are true bulbar types.

Any change in the character of respiration is an ominous sign. The rate may be increased or slowed down. One should look for jerkiness, irregularity, asymmetry of movement of the two halves of the chest, respiratory grunt, dilatation of *ali nasi*.

Involvement of the pharyngeal muscles causes difficulty in swallowing and the collection of saliva and mucus in the throat. The child refuses to take a deep inspiration, because this tends to aspirate the secretions into the larynx. When the respiratory center is affected the respiratory movements are shallow, jerky, and inadequate. Other cranial nerve paralyses are usually present. In all types, as they become progressively worse, cyanosis appears, sweating and a particularly anxious expression as of impending suffocation. Consciousness is maintained until the late stages.

Treatment of the first two types has been immensely helped by the use of the "iron lung" or mechanical respirator, which may sustain respiration artificially until the muscles recover. In pharyngeal paralysis repeated aspiration of the secretions is necessary and the head is lowered.

The medullary form nearly always has a fatal outcome. The patient's own efforts interfere with the work of the respirator, or the heart fails in spite of seemingly adequate respiration.

There is considerable advantage in having the patient with infantile paralysis in a hospital because of better supervision, nursing, laboratory facilities and because they will be better prepared for emergencies. In communities where there is no contagious hospital, general hospitals sometimes permit these cases to be isolated in a private room or small ward. Cross infections in hospitals are extremely rare.

The care of the patient with infantile paralysis consists of complete rest during the acute stage and as long as there is any pain. Avoidance of noise and other irritation is worth while. Handling should be gentle as possible. Sedatives may be necessary to control the pain. Retention of urine may need to be relieved with a catheter, but supporting the patient briefly in the upright position may bring results. Laxatives or enemas for constipation are necessary.

So far there is no specific therapy for poliomyelitis. Serum from convalescent patients has been given intra-muscularly and sometimes intraspinally. Carefully controlled observations do not demonstrate any value in this method and experimentally in monkeys the same is true, unless it is administered long before a diagnosis could possibly be made.

The virus of poliomyelitis damages the anterior horn cells of the spinal cord. This produces nerve degeneration, which results in paralysis of the muscles. The paralyzed muscles waste and the fibers are replaced by fat and fibrous tissue. The principle of treatment is to keep the muscle in the best possible condition, so that if the nerve regenerates the function may be restored. During convalescence most of the damage is done by too much stretching and handling. Stretching may be due to position, such as the sagging of a shoulder, but more often it is due to the pull of non-paralyzed antagonistic muscle groups. The affected parts should be supported or splinted, so that they are held in the neutral position. For example, if there is foot drop, the foot should be supported in a position at right angles to the leg.

After the acute stage is over, an appraisal should be made to determine the degree of paralysis in various muscle groups. This gives a base line from which to estimate the return of function.

The chief methods of restoring the function of the muscles are: Heat, gentle massage, active and passive movements, electrical stimulation. If possible it should be supervised by one who has had experience, because the best results are obtained under these conditions. There is a tendency for the inexperienced to proceed too rapidly, resulting in more harm than good. Under-water exercises are valuable because of the lessened resistance of gravity, the increased circulation due to heat, and the sense of well being that the patient has in warm water. However, unless carefully supervised, the healthy muscles may be over-developed with resulting damage to the paralyzed ones.

Under treatment, improvement may continue for 18 months after the acute stage. Those not treated early, may show improvement for a period slightly longer than this. After there is no more evidence of recovery, surgical procedures, such as muscle transposition, joint fixation, etc., may give better use of the part.

The disease is most common in the temperate zone and in this zone is definitely seasonal in occurrence, lasting from July to October. In regions where there is less seasonal variation in temperature, it is more evenly distributed throughout the year. It attacks children at much higher rate than adults, and in general people

living in small communities, more than those in crowded sections.

It would appear from the low attack rate, that a majority of the population are immune. This immunity may be due to previous abortive or non-paralytic attacks, to frequent slight contacts with the virus, or to something inherent in the individual, which acts as a barrier to the virus. The mechanism of this last method is not well understood, but certain studies lead one to believe that the barrier may be of an anatomical nature.

Where the virus enters the human body is still one of the unsolved problems. Monkeys can be infected by bringing the virus into contact with unsheathed nervous tissue—directly into the brain, through the olfactory bulb in the roof of the nose, and even in the skin. Until recently, it was generally believed that man became infected by the virus being in contact with the olfactory bulb. Further study has opened the possibility that it may be through the intestinal tract, or the skin.

Of the various attempts that have been made to immunize or prevent the disease on a large scale, the following have had the most publicity:

- (a) Serum from convalescent patients or from healthy adults (on the theory that most of them have protective substances in the blood). The supply of serum from convalescents is not great enough—and wholesale immunization by either method would be a tremendous undertaking. By analogy, this immunity if it did occur, would be short lived.
- (b) By vaccination with an attenuated strain of the virus. There is no proof of its value and there is reason to believe that it is actually dangerous.
- (c) By chemical means. Certain chemicals when applied through the nose, to the olfactory bulb, will prevent infection by that route in monkeys. This procedure, using zinc sulphate solution, was tried in the recent Toronto epidemic. There was no conclusive evidence of prevention. Until it has been proven that the nose is the portal of entry in human beings, there seems to be little reason for continuing this procedure.

There is, however, hope that many of these problems will be solved in the near future. Recently, research on poliomyelitis has received a tremendous stimulation, because of support from funds obtained by the National Foundation for Infantile Paralysis. This money comes from the National celebration of the President's Birthday. It is apportioned to physicians who have been studying this disease, in hospitals, medical schools, health departments and research centers—in all parts of the United States. Each physician supervises research on one special problem, but the total covers the field in a coordinated attack such as probably never before has been applied to one disease.

Present Status of Pneumonia Therapy

It was pointed out that the difficult question at the present time in determining the preferred treatment of pneumonia is whether or not the best plan is to use sulfapyridine alone, serum alone, or serum and sulfapyridine. It was the general consensus that there is not sufficient information yet available to determine the value of combined serum and sulfapyridine compared with adequate serum therapy alone or with adequate sulfapyridine therapy alone. Furthermore, there enters into the equation the relative cheapness of sulfapyridine therapy in comparison with serum therapy. It was the general consensus of the Council members that the practice of typing should be continued for information, both in relation to treatment and for statistical purposes. In early cases of pneumonia and when typing has been employed it is probably best to give a specific antipneumococcic serum, at the same time (followed by the specific carbohydrate test to determine if the serum is present in sufficient amounts, this to be followed by the use of sulfapyridine, with the caution not to stop the administration of the sulfapyridine too soon in order to avoid late complications. This statement, however, is to be looked on simply as a tentative statement based on the present evidence. As further data become available the Council will be in a position to make more positive statements.

The Council also voted to accept type III rabbit antipneumococcic serum for a period of one year only, and authorized publication of a report to the effect that the higher types of rabbit antisera are under consideration. Furthermore, the Council will consider with the view to acceptance the carbohydrate material for skin testing and treatment in conjunction with antipneumococcic serums (Francis test).—Excerpt from report of the Council on Pharmacy and Chemistry, J.A.M.A., July 13, 1940, page 133.

From the point of view of the clinical management of the individual case of tuberculosis and from the broader aspect of public health control of the disease, no one test occupies a position of greater importance and significance than that of the sputum examination. The persistence of a positive sputum is regarded as clear evidence that pathological activity of the disease has continued. An improved technic of sputum examination for acid-fast bacilli using tergitol has been reported. The use of this is said to approximate the results obtained by the use of guinea-pig inoculation, which is impractical except in selected cases because of cost.—S. A. Petroff and P. Schain; Quar. Bull. of Sea View Hosp., Jan., 1940.

Pharmacologic Shock Therapy

Recent Studies Presented at the Meeting of the American Psychiatric Association

A Reportorial Review by

JOSEPH L. FETTERMAN, M.D.

AN entire day was devoted to the subject of shock therapy by a section of the American Psychiatric Association at its meeting in Cincinnati, Ohio, on May 20 to 24, 1940.

The study constituted a summary of several years of experience, a critical evaluation of results obtained, suggestions for improvement in technique, and outlines for future approach.

An outstanding contribution as to the value of insulin was reported by Dr. J. R. Ross and his coworkers of the New York State Hospitals. Dr. Ross gave a comprehensive statistical study of the early response and a two-year follow-up of 1,039 schizophrenic patients treated with insulin. The figures showed excellent results in the early cases of schizophrenia and a decreasing recovery rate in inverse proportion to the duration of the illness. However, a considerable number of patients who had shown a favorable outcome at the termination of the treatment developed additional symptoms during the period of further observation. In other words, despite the use of insulin, some patients with schizophrenia show a tendency to relapse.

A similar report of a smaller number of patients was given by Dr. Earl D. Bond of Philadelphia. Dr. Bond likewise reported relapses during the two-year follow-up. This speaker asserted that, despite the relapses, the percentage of recovery was distinctly better than that previously obtained and distinctly higher than a control series without insulin. Doctors Cheney and Clow were somewhat skeptical about the net results from insulin as compared with the excellent, all-round, non-specific care in a high-grade private sanitarium. Their paper pointed to certain criteria which were of help in selecting those patients who might show favorable therapeutic results: The younger patients, patients of better physical status, and particularly those with a well adjusted pre-psychotic personality show a far higher recovery rate than other individuals with mental illness.

The speakers who presented formal papers as well as the discussants found that metrazol had been decidedly beneficial but was responsible for certain complications. Charles F. Read, speaking

for the staff of the Elgin State Hospital, remarked, "Metrazol shock is an excellent therapy in stupors and depressions and in agitated states in later life". These physicians studied in detail certain of the possible complications, none of which were as significant as the fractures. To this complication, Dr. A. E. Bennett and others devoted considerable attention. Dr. Bennett found that curare and a synthetic substitute, if administered prior to metrazol, reduced the severity of the convulsion to a point of relative safety. With the use of curare, it was his opinion that the hazards were minimized without lessening the therapeutic effectiveness of metrazol.

Other attempts in this direction consisted, in the main, of mechanical arrangements to reduce the incidence of fracture of the spine. Dr. Donald Hamilton found a marked reduction in these fractures by the use of a padded table in place of a soft bed; Dr. Read made a similar recommendation in the form of a sand bed in place of a soft mattress; and Dr. E. Friedman advocated the use of a special bed which provided for hyperextension of the thoracic spine. Such beds, the provision of hyperextension, and control of excessive movements by manual restraint were reported to be effective in lessening the spinal fracture complications.

In a round-table discussion on shock therapy, over which Dr. H. D. Singer of Chicago presided, there was free participation by physicians from every section of the United States. Certain interesting comments and experiences were reported. Dr. N. J. Berkwitz spoke on the use of a faradic stimulation to the head followed by intravenous amylal to bring about muscular contractions and later coma as a substitute for the more severe metrazol convulsions. Dr. B. Lipetz spoke of the use of nitrogen inhalation to procure anoxemia as a simplified shock therapy. The favorable results reported by Lipetz were not obtained by workers in other clinics (Guy Williams, Jr., J. L. Fetterman). Dr. Gonda stated that the electroshock therapy technique introduced in Italy several years ago was more rapid and less disturbing to the patient and just as effective therapeutically. This new technique was being introduced by several workers.

Dr. E. Ziskind of Los Angeles called attention to his experience that complications were higher and the results worse in a control group of affective psychoses than in a similar number treated by metrazol. The chief complication was, of course, suicide.

It may be of interest to note that among those who attended the shock therapy session were Dr. Manfred Sakel, the Viennese physician now residing in America, who introduced insulin shock, and Dr. L. Meduna, formerly of Hungary and now also working in this country, the physician whose researches gave us metrazol therapy.

INTERPRETATION

If one were to summarize the essential material from the many papers and discussions of the day, the following significant statements could be offered:

(1) Shock therapy stimulated psychiatric interest in the treatment of mental diseases and offers considerable promise to patients suffering from such illnesses.

(2) Insulin has a distinct value in schizophrenia; it reduces the period of hospitalization; it enables better contact between patient and physician in negative and resistive cases; it has increased, to a certain degree, the recovery rate. It does not have the power to alter the basic destiny of the disease in some patients and does not prevent the tendency of these patients to relapse and to deteriorate.

(3) Metrazol may be used in certain types of schizophrenia and particularly in affective disorders such as depressions and melancholias.

(4) There is distinct progress in the attempt to reduce the complications of metrazol by chemical as well as mechanical means.

(5) Shock therapy must be accompanied by psychotherapy.

(6) The selection of patients, the choice of method, the readjustment of the patient to his environment after his treatment, and the early integration of the personality as far as possible are problems that require active psychiatric attention.

(7) Shock therapy coupled with psychotherapy constitutes a distinct advance in the management of certain psychoses.

Increase in Occupational Disease Claims in 1939, Commission Report Shows

Occupational disease claims filed with the State Industrial Commission during 1939 showed a marked increase over the preceding year, according to a recent report of the Division of Safety and Hygiene of the Commission. In 1938 the number of claims filed totalled 1,358; during 1939 the total was 1,713.

The increase seems to have been due largely to an unusual number of claims filed for skin disease. In this classification there was an increase of 245 claims over the preceding year.

The total number of claims filed for skin disease in 1939 was 1,061 and when divided into probable causes it is found that 27 were due to oils, 162 to cutting compounds or lubricants, 339 to various dusts, 420 to liquids or solutions, 11 to fumes, gases or vapors and 48 to chromic acid or chrome solutions. Of these 48 claims, 40 were for skin involvement and eight for ulceration of the membranes of the nose.

Claims for dermatitis originate from a wide variety of causes and from practically all industries. Many are due to caustic solutions such as plating compounds, alkaline solutions used for cleaning and washing, various dusts with which employees come in contact and from the use of oils and cutting compounds used in the operation of various drills and presses.

Lead poisoning was responsible for the filing of 82 claims which is a slight increase over the preceding year, but a marked improvement over 1937 when 209 claims were filed.

Prepatellar bursitis and tenosynovitis each showed a slight increase during 1939. Forty-eight claims were filed for prepatellar bursitis and 172 for tenosynovitis. In addition to the claims filed for lead poisoning, 31 other claims were filed for various mineral and chemical poisonings. These were listed as follows: benzol, 6; volatile petroleum products, 5; brass or zinc, 3; arsenic, 2; sulphur dioxide, 2; mercury, 2; manganese, 1; anilin, 1, and wood alcohol, 1.

During the past year 160 claims were filed because of silicosis and of this number 120 were due to silicosis alone and 40 to silicosis complicated by tuberculosis. This is an increase of 34 claims over the previous year. It should be noted, however, that the silicosis law was amended and some of the legal requirements changed on and after May 26, 1939. The records of the Division show that up to January 1, 1940, 111 claims for silicosis had been allowed by the Commission and 54 were still pending. These figures, however, apply to all claims filed since the silicosis law became effective, August 1, 1937. A classification of the claims which have been found compensable by the Commission show that the foundry industry had 53.1 per cent of the claims, with the ceramic industry with 37.9 per cent.

During the past year the occupational disease law was amended by an act of the Legislature to include all occupational diseases. This law became effective May 26, 1939, but does not mean that all diseases by which employees are afflicted are compensable or occupational and in defining an occupational disease the following explanation is given in the law: "A disease peculiar to a particular industrial process, trade or occupation and to which an employee is not ordinarily subjected or exposed outside of or away from his employment."

Pyelonephritis

A Case Presenting Clinical Problems

HARRY L. RINEHART, M.D.

A TWENTY-YEAR-OLD white female, was admitted to the hospital with the complaint of severe pain in the right flank. The onset of the pain was two days ago with a sudden seizure in the costovertebral angle which radiated laterally into the epigastrium and right upper quadrant. It was spasmodic in type, increased in severity, followed by vomiting, and heat and codein gave slight relief. She has not noticed any change in the character or frequency of urination.

Past History: She gave no history of a previous attack similar to this. During childhood and at intervals since then she had marked frequency and burning. She has had nocturia of one to two times per night. Menses began at 11 years of age, regular but with severe cramps every other month. Accompanying the dysmenorrhea there was marked pain in the right side, usually accompanied by nausea but without vomiting. An appendectomy was performed one year ago for "chronic appendicitis", but the pain in the right side has recurred with menses since that time. She has had swelling of the ankles and eyelids, usually nocturnal and noticeable dyspnea on mild exertion.

Physical Examination: The patient is a short-limbed, short bodied while female in acute distress. The blood pressure is 142/106, temperature 102°, pulse 120, respirations 20. There is no edema of the eyelids. Examination of the chest reveals no evidence of lung pathology. The area of cardiac dullness is wide. No cardiac thrills or murmurs are heard. There is marked tenderness over the right kidney and mild tenderness over the left kidney on palpation. The extremities present no edema.

Laboratory Data: Repeated urinalyses revealed numerous pus cells, red blood cells and cocci on all occasions. P.S.P. excretion was 0 in 5 minutes and trace in 15 minutes from the right kidney, 5 per cent in 5 minutes, 10 per cent in 15 minutes from the left kidney. Blood Counts: The hemoglobin ranged from 14.2 to 8.6 grams; the erythrocytes from 2.67 to 4.30 millions per cu. mm.; the leucocytes from 23,750 to 65,600 per cu. mm., with a differential count of 88 per cent to 98 per cent neutrophils and a marked shift to the left. Blood Chemistry: The day following admission the B.U.N. was 56 mg. per cent. It gradually rose to a terminal level of 166 mg. per cent. The Vandenberg reaction revealed a direct positive and a quantitative bilirubin of 4.1 mg. per cent. Blood Wassermann and Kahn reactions were negative. Cultures from the operative wound showed hemolytic staphylococcus aureus. Blood culture on the tenth hospital day also revealed hemolytic staphylococcus aureus.

Course in Hospital: Immediately after admission a catheter was placed in the right ureter. Cystoscopic examination on the third hospital day showed a membranous trigonitis with congestion around the right ureteral orifice. The left ureter drained clear urine at this time and an X-ray showed no evidence of stones in the G.U. tract. There was an obstruction to passage of the catheter in the lower third of the right ureter; 750 to 3500 cc. of saline and glucose were administered daily, and six blood transfusions were given during her 18 days in the hospital. On the fourth hospital day a right nephrectomy was performed, following which she developed icterus, and edema especially of the feet. Sulfanilamide (65 grains) was given on the fifth and sixth hospital days, but was discontinued because of the low blood cell count. The urinary out-put decreased after operation and varied between 255 cc. and 710 cc. plus involuntary voiding. She gradually became weaker, developed a purpuric rash on the fifteenth hospital day with increasing subcutaneous and pulmonary edema and a rapid irregular pulse, and expired on the eighteenth hospital day.

Discussion—Dr. B. K. Wiseman:

This case appears to offer no particular difficulties in differential diagnosis. The onset with severe pain and tenderness in the right flank, together with a urine showing albumin, pus, red blood cells and bacteria strongly suggests pyelonephritis. It is probable that the present episode represents a recrudescence of this disease or an extension to the kidneys of a pre-existing rather long-standing urinary tract infection since the past history contains notes of marked frequency and burning and nocturia during childhood. It is also probable that at least the right kidney was involved as early as one year ago as the history indicates attacks of "appendicitis" for which operation provided no relief. An operation for "chronic appendicitis" with no improvement following removal of the appendix continues to be a common story in patients with abdominal complaints later proved to be due to other pathology. Here is a repetition of the lesson that experience has long attempted to teach; namely, that the syndrome of chronic (or atypical acute) appendicitis, in the event that operation is decided upon, should always call for an abdominal exploration in addition to any decision involving the removal of the appendix. In no other way will certain cases of obscure intra-abdominal disease, simulating appendicitis, be definitely recognized, when other diagnostic

This is the fifty-second of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conferences at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

data are inconclusive. The further historical note as to swelling of the ankles and eye-lids and of dyspnea upon mild exertion would definitely implicate renal function. The results of the differential P.S.P. showing no function on the right and diminution on the left removes any possible doubt as to the origin of these symptoms.

Of interest also are the hypertension and enlarged heart (presumably left ventricle) in the presence of low kidney function. This is a practical demonstration in a patient of Goldblatt's experimental work with dogs in which renal ischemia is experimentally produced by partially clamping the renal arteries. It should be emphasized that pyelonephritis does not always produce hypertension; in such cases it must be presumed that renal ischemia does not occur, and therefore the humoral (hypertension) factor is not elaborated by the kidneys.

During the course in the hospital blood cultures and cultures from the operative area both showed hemolytic *staphylococcus aureus*. This is clearly evidence of a staphylococcal septicemia. Since the same organisms were present in the urine on admission it is probable that the general blood stream infection took origin from the previously infected kidneys. In staphylococcus septicemia, experience shows that 98 per cent of the cases are due to the hemolytic *aureus* variety. Most cases follow simple boils, carbuncle or osteomyelitis; however, any infected tissue may serve as the portal of entry of these organisms. *Staphylococcus septicemia* is characterized by multiple abscesses occurring diffusely throughout the body, many being silent. A recently studied series of cases showed an average of 12 complications per case. Jaundice occurring as a complication is usually due to acute parenchymatous hepatitis, as the hemolytic properties of the staphylococcus are rarely, if ever, sufficient to provoke rapid enough hemolysis of the red blood cells to provide a clinical jaundice. That considerable hemolysis occurred in this case, however, is clearly evident in that six blood transfusions were given over a period of 18 days without any increase in the peripheral level of red blood cells. It is not likely that the jaundice and progressive anemia were due to an acute hemolytic anemia induced by the sulphanilamide medication, since this jaundice was apparent before this drug was given and this type of anemia would have been even much more rapid and not controlled by transfusions in the face of continued specific therapy. It is interesting to note that the white blood count was at extraordinarily high levels. This is probably the result of a summation of chemotactic factors, including the hemolysis of red blood cells and the characteristic effect of multiple points of suppuration in an individual with

above average intrinsic functional capabilities of the bone marrow.

The treatment of staphylococcal septicemia can now be placed on a more efficient basis since the introduction of the new sulphonamide compounds. This fact, however, in no way diminishes the importance of immediate surgical attention to the local point of dissemination. In the case under discussion, the removal of the suspected right kidney was probably justified since it was not only functionless but more important was most likely the source of the bacteremia. Sulphanilamide was probably given in desperation as there is no evidence that this drug has any favorable effect in limiting the growth of the staphylococcus. There are now available, however, three sulphonamide derivatives that are very effective in inducing staphylococcal bacteriostasis; namely sulphathiazol, sulphamethylthiazol and sulphapyridine. Of these drugs, the most recent work indicates that the former is most effective in vivo and the latter is more efficient in vitro whereas sulphapyridine is effective in vitro, but entirely ineffective in vivo (Rake, G., and McKee, C. M., *Proc. Soc. Exp. Biol. & Med.*, Vol. 43, March, 1940, p. 561). More experimental work and therapeutic observations are necessary before the final word can be given but at present sulphathiazol would appear to be the chemotherapeutic agent of choice. The use of blood transfusions in staphylococcal septicemia is, of course, wholly laudatory, not only from the standpoint of maintaining red cell levels but also as an agent for aiding in sustaining resistance. Staphylococcus antitoxin, as now made commercially, is probably not very effective because while there are anti-hemolytic substances present it does not contain anti-leucocidin. Finally, one must watch for metastatic complications in this type of septicemia and promptly institute surgical measures when possible. In summary, I would suggest that this represents a case of an acute exacerbation of a chronic pyelonephritis with staphylococcal septicopyemia, multiple pulmonary abscesses, many silent abscesses in various organs and acute hepatitis, with death due to an overwhelming toxemia incident upon the infection and the progressive uremia.

Dr. Reinhart:

Anatomic diagnosis. Status post nephrectomy, right kidney. Multiple bilateral acute pulmonary abscesses. Multiple acute myocardial abscesses. Acute fibrinopurulent pericarditis and pleuritis, bilateral. Congenital hypoplasia of left kidney (39 grams) with multiple acute abscesses. Acute septic splenic tumor. Pyemia. The length of the body was 140 cms. (about 4½ feet) and there was a definite increase of hair tending to male distribution. There was no evidence of anatomical alterations of the endocrine glands.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

BRONCHOSCOPY IN TUBERCULOSIS

BRONCHOSCOPY is not contraindicated except in cases of (1) acute laryngeal tuberculosis; (2) recent extensive hemorrhage; (3) far advanced tuberculosis with toxemia and cachexia. Even these contraindications may be considered only relative in isolated cases. Bronchoscopy in the tuberculous is now an accepted procedure by many phthisiologists and bronchoscopists.

The indications for bronchoscopy have been listed (1) as a diagnostic procedure for differential diagnosis; (2) as a diagnostic study in proved cases of tuberculosis with certain signs and symptoms; (3) to assist in carrying out endobronchial procedures, such as the instillation of opaque media or for therapeutic purposes.

TRACHEOBRONCHIAL TUBERCULOSIS

There are apparently two methods of the development of tuberculous tracheobronchial lesions; by continuity through direct extension from neighboring structures as through the lymphatics, and by the implantation of bacillary sputum on the mucosa. Several types of lesions have been observed, namely, (1) the diffuse and nodular mucosal or submucosal lesion, (2) ulcerative lesions, (3) fibrostenotic lesions, and various combinations of these.

A wide variation in incidence has been reported by various writers. One group of workers found tuberculous tracheobronchial lesions in 41 per cent of autopsies of tuberculous cases and another worker reports only 4.4 per cent tuberculous lesions in the major bronchi.

The development of the bronchoscope has stimulated the study of tuberculous tracheobronchitis in the living, not only from the diagnostic viewpoint, but also in relationship to pulmonary disease, as well as with regard to the therapy of the local lesion.

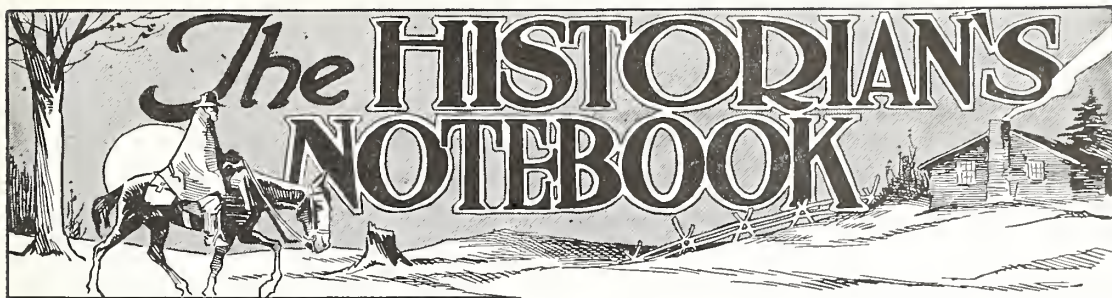
The symptoms of tracheobronchial tuberculosis are wheezing or asthmatoïd attacks, paroxysmal attacks of intractable coughing with production of variable amounts of thick tenacious sputum at different intervals, dyspnea out of proportion to vital capacity with inspiratory stridor, cyanosis, constant clearing of the throat, persistently positive sputum in the absence of other evidence of pulmonary tuberculosis and intermittent atelectasis. It is apparent, in view of the experience of many and the recent extensive literature, that these cases should be bronchoscoped before any

major surgical procedure for diagnostic reasons, as well as for therapeutic relief. It is also true that bronchoscopy should only be considered as a supplemental part of the complete examination of the patient. It also should be stressed that bronchoscopy should only be done by trained hands. A thorough knowledge of the anatomy of the structures involved is essential. It should be unnecessary to emphasize again that gentleness is of extreme importance, and that psychic as well as physical trauma of the patient must be avoided.

AUTHORS' EXPERIENCES

After describing the bronchoscopic appearance of lesions, treatment procedures and other considerations discussed by various writers, the authors offer their own experiences. For the past two years all patients admitted to the Monterey County Sanatorium have been routinely studied by bronchoscopy, unless definitely contraindicated. Criteria were rigid and the findings of one observer were checked by the other. In a series of 53 cases definite tuberculous tracheobronchitis was found 37 per cent. Nearly all of the lesions were early mucosal and submucosal and most showed definite visible tubercle formation. The majority were on the posterolateral and posteromedial walls of the main bronchi on the side of the pulmonary lesion. In only 3 of 20 definite cases were there symptoms. All cases have been treated by local applications of 30 per cent silver nitrate, and all but one case have shown improvement on repeated examination and treatment, with apparent definite healing in six. Healing has been interpreted by a flattened and normal appearing mucous membrane at the site of the previous lesion. In one other case a recurrence of the tracheobronchial ulceration occurred three months after there was apparently definite healing. Several cases with negative findings have been bronchoscoped, subsequent to collapse procedures, for check-up on persistently positive sputum and no bronchial lesion was found.

There were no complications attributable to bronchoscopy and no apparent ill effects in over 100 examinations. Patients accept bronchoscopy as a matter of routine. Carefully performed bronchoscopy is a relatively simple procedure which carries practically no risk, and yields a considerable amount of valuable information.—John G. Sharp and C. B. Gorham, *Amer. Review of Tuberc.*, Vol. XLI, No. 6, June, 1940.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

"Those Were Thrilling Days"

ANTON W. OELGOETZ, M.D., COLUMBUS, OHIO

NO experience which can come to the doctor is more thrilling or stimulating than the opportunity to study in the very rooms in which the big things in Medicine were first done. It is like studying religion in the Holy Land on the very ground on which Christ walked. In this article we will make a pilgrimage back to Carl Ludwig's laboratory in Leipzig—Ludwig, the master, the greatest teacher of physiology who ever lived—during the period when modern Medicine was being born. We are fortunate in that we can establish by means of letters written by Ludwig a very real connection with this great man of Medicine in the heyday of his most productive period.

The present writer has long been interested in the pancreas. While preparing for a research project, doing the usual detective work, running down leads and references so as to thoroughly familiarize himself with all that had been done in this field, he came upon a curious trail. The trail led first to Claude Bernard's laboratory in Paris, thence to Ludwig's laboratory in Leipzig, and finally to Ohio State University, Columbus, Ohio.

Doctor A. M. Bleile, formerly professor of physiology at Ohio State University was a pupil of Ludwig's during the period 1877-1879. It was characteristic of Ludwig that he never lost contact with his pupils. After Doctor Bleile returned to Columbus he had many letters from his old teacher, all written and signed in long hand. Some of these letters were preserved by Miss Kitty Bleile of this city. Miss Bleile is also in possession of her father's notebook. During his days with Ludwig, Doctor Bleile was working on the pancreatic secretions. This old notebook contains his original notes and experiments.

One of Ludwig's letters opens in this way:

"Dear Bleile:—I was glad to receive your letter and learn of the progress you are making in your work. I am happy to learn that you are

The Author

● Dr. Oelgoetz, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1917; member medical staff, White Cross Hospital, Columbus, Ohio.

established at the University at Columbus on the Ohio."

Ludwig speaks of "Columbus on the Ohio" in all his letters. He evidently believed that Columbus was located on the Ohio River.

"Now that you are back among pious people, remember that we are scientists, and because scientists are not pious, we must be doubly good and honest and honorable. We must never forget that it is truth which we seek and we must be careful not to deceive ourselves by false interpretations. . ."

Ludwig was a great teacher; he encouraged his pupils in every possible way. All of the work which came from his laboratory was published over the names of his pupils. During his entire life he published but two articles and one textbook over his own name. In another letter we find him writing to Bleile:

"I note that you have completed your work on soap. I approve; publish it in your own name; leave mine off."

Absorbent cotton had not been invented at this period. In a later letter we find him writing:

"I did not receive the absorbent cotton which you promised to send. However, we have lately extracted the fat from wool and this makes a very satisfactory and cheap substitute. . ."

In other letters Ludwig makes these interesting remarks:

"Your old friend, Woolridge has, for the present, stopped his work on the blood. He has found a wife and I have sent him off to Berlin and Paris to have a good time. I have learned that my dirty laboratory cannot hold a man

against a girl. . . As for myself, I am well, the laboratory is busy as ever and growing, and that is a source of real comfort to me. . ."

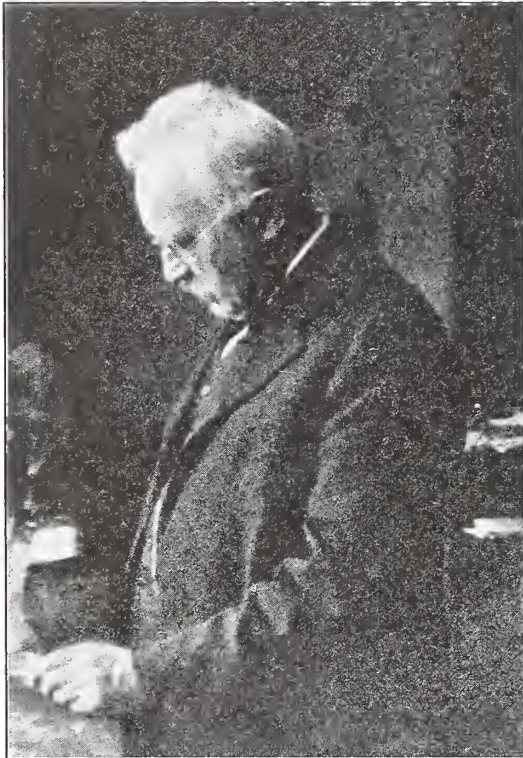
Oct. 17, 1881
Leipzig.

CARL LUDWIG.

Because the letters are written in German and because they are interspersed with purely personal items, it would be unprofitable to translate them verbatim. However, by means of information gained from these letters, from personal chats with Boldyreff, who was a pupil of Pavlov, who in turn worked under Ludwig during this period, and other sources, I shall attempt to show what went on in Ludwig's laboratory during these epochal days when medical history was being made.

* * *

It is 1887—Leipzig—Ludwig's laboratory. Let's go in, see what is going on. Do you see this little hawk-nosed, high cheek-boned, blue-eyed man with shaggy long hair? That is Ludwig. Notice his piercing eyes. If you get close to him you will note that he actually smells like a dog from constant work with these animals. During the progress of crucial experiments Ludwig often



DR. A. M. BLEILE

personally cared for his dogs in his own home. He is talking to one of his pupils. One can see that he is an unpretentious, modest, sincere man, but the energy and determination which flash from his eyes as he talks, tell plainly that he is

rigorous and exact in his methods. As one would expect, Ludwig invented the graphic method for recording physiologic phenomena. His mind is of the purely plastic kind which visualizes everything as a material phenomenon. He is a prac-



DR. CARL LUDWIG

tical man. He has no use for psychology or mathematics or any of the sciences which repose on a meta-physical basis.

"Das ist falsch!" he is saying, (That is false!) "Hier suchen wir die wahrheit!" (Here we seek the truth!) All of Ludwig's pupils, 200 of them of all nationalities from all over the world are destined to hear and cringe before that word "falsch". Before Ludwig, Medicine was a heterogeneous mixture of purely empirical remedies, superstitions, magic, religion, folklore and old wives remedies. Ludwig introduced the scientific method into research, and truth was taught as the only excuse for science. He would accept nothing which could not be proved. Ludwig, like all great teachers, had the knack of guiding, drawing out his pupils. Let's go through his laboratory, see what is being accomplished here.

Over there, in the far corner of the room is Salvenmoser, Ludwig's faithful assistant. He's setting up an experiment for Ludwig. Let's stop a moment; see what he's doing. Why, he's doing a perfusion experiment—keeping a kidney alive outside the body. We call it tissue culture. Ludwig invented this technique which, in our time, was so effectively used by Carrell of the Rockefeller Institute. It was by means of this technique that Ludwig made his observations on urinary secretion. Ludwig's theory is still accepted by most physiologists.

Helping Salvenmoser is a young fellow from

Leipzig 15 Juli 1879

Herrn Dr. H. M. Meile — Columbus-Mu-
seum, ich während eines mehr als drei Semester
im physiologischen Institute der Universität Leip-
zig mit wissenschaftlichen Untersuchungen be-
schäftigt. Da das Resultat derselben schon theil-
weise veröffentlicht ist, so darf ich es dem Urtheil
der Sachverständigen überlassen welche Bedeutung
in denselben zu legen sollen.

Durch die Anwesenheit des Herrn Dr. Meile war
mir Gelegenheit geboten mich von seiner Thätigkeit
und seinem Eifer für unsere Wissenschaft zu überzeugen.
Auf seinem Abgange von hier kann ich ein rechtliches
Bedauern über den Verlust eines so tüchtigen Mitarbei-
ters nicht unterdrücken.

L. Ludwig

Prof. d. Physiologie u. Hygiene des Ges.
Chirurg zu Leipzig



England, Sydney Ringer. They are perfusing the kidney with a solution containing salts, a solution which, when perfected, will be known and used in every laboratory throughout the world. But we must move on; there are so many interesting things to see here.

In another room across the hall we see Bowditch and Kroneker—Bowditch who later estab-

who determined the effect of sodium, potassium and calcium upon the heart-beat. Kroneker, with Ludwig, invented the first practical sphygmomanometer and made the first blood pressure studies on human beings. It was Bowditch and Kroneker, working together, who found that nerves cannot be tired out, but that it is the nerve endings which become fatigued. By block-

ing the nerve endings with curare they produced local anesthesia, which Schleich, Crile and Cushing later made a practical surgical procedure.

Bowditch enthusiastically demonstrates for us. He injects water into the skin of his forearm, then cuts himself. "See", he shouts, "there is no pain! I have blocked out the sensory nerve endings with pressure."

Way back at the other end of the hall in a small room we see a funny looking little fellow with a long beard. He is busy with a lot of figures, thousands of figures. It is Max Rubner and he is making experiments on metabolism. Rubner is a shy fellow. He explains that he believes he has evidence that metabolism is proportional to the surface area of the body. If he can prove that this is true, he will have a practical method for measuring metabolism. "Probably nothing will come of it," he smiles modestly, but he has already proved that the specific dynamic action of foods is greatest for proteins and least for carbohydrates, and he was the first man to investigate metabolic changes in terms of heat and energy with a calorimeter.

In another room we see Schmidt-Mulheim doing "pure research". He is injecting peptones into the blood stream of dogs. "I haven't the slightest idea what will happen," he explains. "If we are lucky, we might learn something." Sounds as if he was getting pretty close to allergy here, although he does not use that word. In another long room we see Wool-

15: 9.30 releases water
16. 10.15. 10.30 (Cloring
passed during night 9.15
no action on 7.20. 7.30. In
five minutes flow of bile
fluid - 10.15. 10.30. 10.45. 11.00
17. - faecal matter found
11.0. 11.15. 6 3/4 milk - W-23-
11.30. 11.45. 6 3/4 milk -
(had curdy stool)
16. Had small curdy stool
during night 10.15. 10.30. 10.45. 11.00
W. 22 - 5.30 P.M. 6 3/4 milk -
17. Curdy stool during night
23 milk no stool - 11.15 6 3/4 milk
W. 21 - 11.45 no stool - no act. on
7.20. Catheter passed 3 1/2 in
small quantity of mucus, acid
no action on 7.20 - 12.15 no stool
no action on 7.20. Catheter passed 11.15
stool. 11.30 no action - 12.15 no stool
12.30 no stool 4 in curdy mass
12.45

Page from Dr. Bleile's Notebook (April 15, 1882)

lished the first physiologic laboratory in the United States, and jolly, beady-eyed Kroneker, the life of Ludwig's laboratory. It was this research team who had previously announced the "all or none" law concerning cardiac muscle and

ridge doing his tremendously important work on coagulation of the blood and Bleile of Columbus who is working on the pancreatic secretions. Kuhnee, a former pupil of Ludwig's, but now working in Claude Bernard's laboratory in Paris,

announced the discovery of trypsin only last year (1876). Bleile was hot on the trail; the discovery of trypsin was in the air; all of the laboratories were hot after it, but Kuhnee published first. In the same room sits Conrad Gompertz, dissecting the muscles of the heart, working out the arrangement of the muscle fibers to see if he can demonstrate a definite pattern which he might turn to practical account.

Let's see what is going on over in the annex. In the far corner, sitting on the tops of their laboratory tables talking over a problem in research, are two Russians, Pavlov and Ustimovich, a Japanese, Ogata and Ludwig. Ustimovitch is talking excitedly. Let's listen in!

"Tell me, how can we tell if proteins are digested in the stomach or in the bowel unless we excise the stomach?"

"You are right, Ustimovitch," says Ogata, "but if we excise the entire stomach, your dog dies. We have tried it, haven't we Pavlov?"

"Yes," says Pavlov, later to become known as the world's cleverest experimenter on the gastro-intestinal tract, "we cannot excise the stomach. We destroy too many dogs. The Herr Professor won't permit it. I have a plan which I think will work. What do you fellows think of this? We will bring up a loop of the small bowel just below the duodenum and suture it to a stab wound in the abdominal wall. Then we will open the bowel (enterostomy). This will give us two permanent openings, one leading from the stomach and the other leading into the bowel. By this technique we can recover material from the stomach and introduce material into the bowel. Understand? We can see what happens, separately, in the stomach and in the bowel. What do you think about it, Herr Professor?"

Ludwig has been listening, attentively, thoughtfully. "Try it," he says.

This was the beginning of later experiments which resulted in Pavlov's: *The Work of the Digestive Glands* which, in 1914, gained for this worker the Nobel prize.

It was at this long table in the center of the room that Czermak did his "useless" work with mirrors. Later on, in Vienna, he gave us the laryngoscope. At this same table only a year ago Flechsig did his work on the medullated nerves, while four years ago Dittmar, likewise working under Ludwig's eye discovered the vasomotor center of the medulla. At this table, five years ago, Von Kries first measured the capillary blood pressure. In this room to the right, Lauder Brunton of London and Oswald Schmeideberg of Bohemia first studied the effects of drugs upon the circulation by graphic methods. They traced the pressor nerves of the vagus and made the first scientific study of the effect of digitalis.

At this table Dogiel invented the stomuhr for

measuring the quantity of blood passing in unit time, while next to him Becher and Rahn discovered the enervation of the salivary glands. Over in that corner by the window Lothar Meyer investigated and described the gasses of the blood. Here, at this table, Cloetta first discovered uric acid in the human body, while Stephan, the physicist, did his work on the pressure exerted by flowing water in a plane perpendicular to its direction, studies important to an understanding of blood pressure. Over in that corner Ilie Von Cyon did his work on the effect of temperature upon the heart-rate and discovered the *nervi erigentes* of the peripheral vessels.

* * *

In one of the last letters which Ludwig sent to Bleile, he wrote:

"Dear Bleile:—You have not written for a long time. Don't forget I am an old man; I was 75 yesterday. . . It will soon be for you to carry on our work. . . Do not be discouraged; one must keep on trying until pretty soon you will meet with a little success, and this will give you pleasure and encourage you. . . Do not overlook anything; that little detail may be the very thing which will enable you to unravel the riddle of life. Unless we understand life, how can we hope to understand the problems confronting man?"

Courage and dogged, untiring persistence in finding and facing the truth—that was the keynote of the man's greatness. Such advice as he gave to his former student during the last years of his life may well be pasted in the hat of every honest physician and research worker today:

"Develop a sense of humor; learn to be patient. . . Try not to make too many mistakes. . . In spite of all our difficulties we have been able to accomplish a few things."

1025 E. Whittier St.

Relation of General Education to Professional Education

Summing up, I will stress the need for more college work; for a broader, less intense, course of study; for teaching more suited to our needs; for more culture and less science, without in the least deprecating the value and worth of science. The art of medicine must be conserved. It has been neglected for a long time. The need for a broader education of the physician to the end that he will serve the patient as a human being and not as a case of any particular disease cannot be stressed too much. It should be the first thought of the general as well as of the medical educator. If we will do that, the results will be much better than they have been for a long time. It is not credits or hours that count; it is knowledge and the ability to make good use of that knowledge. That is real education.—Fred C. Zapfe, M.D., Chicago; Jr. Assn. of American Med. Colleges, Vol. 15, No. 4, July, 1940.

Medical Preparedness Program in Ohio Inaugurated; Council Authorizes Appointment of Special Committee to Direct Activities Here as a Part of National Defense Plan

INITIAL steps toward organizing the medical profession of Ohio on a basis which will make Ohio's 9,000 physicians and vast medical resources promptly available to the country in event of a national emergency have been taken by the Ohio State Medical Association.

At a meeting of The Council of the Association on July 7, the following actions were taken:

1. President Skipp, Youngstown, was authorized to appoint a Committee on Medical Preparedness, composed of one member from each of the 11 Councilor Districts of the Association and with Dr. Harry V. Paryzek, Cleveland, as chairman.

2. Dr. Paryzek was nominated as liaison officer between the committee to be appointed by Dr. Skipp and the Committee on Medical Preparedness of the American Medical Association, established by the House of Delegates of the A.M.A. at its recent New York session.

3. The Council endorsed the principle of national preparedness and pledged the active cooperation of the medical profession of Ohio in efforts to make adequate defense of the United States a reality.

4. The Council offered the facilities and services of the Ohio State Medical Association to agencies engaged in carrying out the gigantic national defense program.

STATEMENT OF THE COUNCIL

These matters were taken care of by The Council through the adoption of the following statement of policy, setting forth basic principles and possible courses of action:

"Catastrophic changes in world affairs resulting from the wars now raging abroad have awakened the people of America to the necessity of preparing to defend the freedom and security which they now enjoy.

"Activities are being undertaken by the Federal Government to adequately prepare this country to meet conditions which threaten our nation and our American ideals.

"Organization of the nation for preparedness involves the complete cooperation of all citizens and the mobilization of all of its resources.

"Speaking officially for the medical profession of Ohio, numbering approximately 9,000 physicians, The Council of the Ohio State Medical Association endorses the principle of national preparedness and pledges the wholehearted coopera-

tion of the medical profession of this state in efforts to make adequate defense a reality.

"Realizing that a strong preparedness program must incorporate plans for organizing the medical profession so that thousands of physicians will become available promptly for duty with the military services, to supply medical care to those engaged in war industries, to handle technical activities in connection with the mobilization of the military forces, and to care for the health and medical needs of the civilian population, we offer the facilities and services of the Ohio State Medical Association, including its headquarters office at Columbus, to local, state and Federal governmental agencies concerned with the preparation of the country for present or future emergencies.

COOPERATION OFFERED

"The Council of the Ohio State Medical Association endorses action which has been taken by the American Medical Association in offering the complete cooperation and all facilities of that organization to those furthering the nation's preparedness program.

"Moreover, it offers the active assistance of the Ohio State Medical Association to the American Medical Association in completing plans for the mobilization of the medical profession of the United States on a volunteer basis for military and civilian services in event of a national emergency.

"In order to bring about the proper coordination between the services and facilities of the Ohio State Medical Association and those of the American Medical Association, we authorize:

- "1. The President-Elect of the Ohio State Medical Association, Dr. Harry V. Paryzek, Cleveland, to serve as Ohio representative for the Committee on Medical Preparedness, which has been established by the American Medical Association to represent the medical profession on matters of national preparedness;

- "2. The President of this Association, Dr. William M. Skipp, Youngstown, to appoint a Committee on Medical Preparedness to represent the Ohio State Medical Association in such matters, consisting of one physician from each of the 11 Councilor Districts of the Association and with Dr. Paryzek as chairman.

"It is in strict accord with the history and traditions of the medical profession of Ohio that it should pledge its services and resources to preserve the safety and peace of our country,

ALL OHIO PHYSICIANS URGED TO GIVE PROMPT ATTENTION TO QUESTIONNAIRE MAILED TO ALL DOCTORS BY MEDICAL PREPAREDNESS COMMITTEE OF A.M.A.

FIRST assignment which has been undertaken by the Committee on Medical Preparedness of the American Medical Association is to obtain pertinent information direct from every physician in the United States for the medical preparedness files of the A.M.A. at Chicago.

A letter and questionnaire are being mailed to all doctors of medicine. Ohio physicians are urged to give the questionnaire from the A.M.A. prompt attention as the entire medical preparedness program of the A.M.A. will revolve around the data which will be obtained. If any Ohio doctor fails to receive this material he should inform the A.M.A., 535 North Dearborn Street, Chicago, or the Headquarters Office of the Ohio State Medical Association, Columbus, so that it can be supplied to him.

Following is the text of the communication from the A.M.A. which is accompanying the questionnaire, setting forth the reasons for the questionnaire and the importance of prompt replies:

"Dear Doctor:

"Enclosed is a request for information, sent to you by the Committee on Medical Preparedness, established by the House of Delegates of the American Medical Association, to cooperate with the Council on National Defense and the Surgeon Generals of the United States Army, Navy, and Public Health Service.

"Accompanying this letter is a reprint of the resolution introduced by the Board of Trustees and unanimously passed by the House of Delegates, and also a communication from Colonel George C. Dunham of the United States Army Medical Corps.

"You are asked to fill out correctly the schedule herewith submitted in order that the information you supply may be transferred to punch cards. Thus complete information will be available of the extent to which you will be capable of aiding in the preparedness of the nation for any military emergency. The numbers on the schedule are for keying the data and are not to be considered in supplying information.

"The information which you supply will be held strictly confidential; it will be used only in connection with military purposes. The necessity for prompt action is apparent. Please complete the schedule immediately and return it in the envelope supplied for that purpose."

for it always has been foremost in offering its facilities to our government in times of stress and emergency.

PLANNING NOW ESSENTIAL

"Moreover, it is wise and desirable that foresighted plans should be made at this time as hasty, eleventh-hour organization of America's medical resources for military service would be ill-advised, making only for inefficiency and lower standards of service.

"In the face of any threat to national security, a united profession is essential. It must stand ready to play its part on both military and civilian fronts. With this in mind, The Council has committed the Ohio State Medical Association and its thousands of members to full cooperation with agencies engaged in preparing this nation to defend itself against forces which threaten our people and our governmental, social, and economic principles."

Dr. Skipp plans to announce the personnel of the Committee on Medical Preparedness in the near future so that the committee can begin to carry on follow-up work in Ohio for the Ameri-

can Medical Association and take such other action as it deems necessary.

As pointed out in the statement adopted by The Council, one of the chief functions of the committee will be to assist in organizing the medical profession of Ohio on what might be termed a "volunteer" basis, establishing an index of physicians as to qualifications, ability and availability for military service, and setting up quotas to guarantee an adequate supply of physicians for service with the military forces and an adequate supply for service among employees of war industries and the civilian population.

MANY HOLD COMMISSIONS

At the present time about 1,000 Ohio physicians hold commissions in the medical reserve corps of the Army or Navy, or National Guard. Names of these physicians have been obtained and are on file at the Headquarters Office, Columbus. Additional important data is being assembled for use by the Committee on Medical Preparedness. Constant contact is being maintained with the headquarters of the A.M.A. on this activity so as to assist the A.M.A. in co-

ordinating activities having to do with the national medical preparedness program.

All Ohio physicians should keep themselves informed of progress being made by reading the Section on Medical Preparedness, appearing each week in *The Journal of the American Medical Association*. Information also will be published monthly in *The Ohio State Medical Journal* and suggestions will be made to county medical societies through special bulletins issued by the Headquarters Office, Columbus.

OPENINGS IN SERVICES

At the present time recruiting to increase the personnel of the Army, Navy and Marine Corps is in full swing. This means that there will be openings in the medical corps of these services for doctors of medicine. Ohio physicians desiring to take the examinations for commissions in one of these branches of the armed services should communicate directly with one of the following headquarters: Surgeon General, U. S. Army, Washington, D. C., or Fort Hayes, Columbus, Headquarters for the Fifth Corps Army Area; Bureau of Medicine and Surgery, Navy Department, Washington, D. C., or Medical Officer, Ninth Naval District, Great Lakes, Illinois; United States Marine Corps Headquarters, New Federal Building, Detroit.

"The following statement was issued recently by the War Department regarding Army Reserve Corps service and openings:

"The physician, like every other American, has become actively interested in our national security and stands ready to contribute his services as required for military preparedness.

"The immediate problem in this connection is one that concerns the War Department, and primarily the young physician. The War Department must procure sufficient additional personnel from the medical profession to augment the medical services of the regular army as the various increases are made in the strength of the regular army, as authorized by Congress to meet the partial emergency. The young physician is especially concerned because it is usually advantageous, and is often more convenient for him to serve with the army.

ESPECIALLY FOR YOUNG DOCTOR

"Present plans of the War Department are designed to make service attractive and instructive for the young physician. If the physician holds a Medical Corps Reserve commission he can be ordered to active duty if he so requests. If he does not hold a commission, but is under 35 years of age and is a comparatively recent graduate of an accredited school, he may secure an appointment in the Medical Corps Reserve for the purpose of obtaining extended active duty for a period of one year or longer. Duty is given at general hospitals, station hospitals, and with

tactical units, and embraces all fields of general and specialized medicine and surgery. Excellent post-graduate training is obtainable in connection with aviation medicine. After serving six months of active duty in the continental United States, a reserve officer may request duty in Hawaii, Panama, or other United States territories and possessions. The initial period for duty is for one year and yearly extensions are obtainable thereafter until the international situation becomes more clarified and our domestic military program becomes stabilized.

"Many young doctors who have served with the army on extended active duty have taken the competitive examination for entrance into the Medical Corps of the regular army. Extended active duty affords an excellent opportunity for the physician to observe modern military medicine and the facilities that exist for a complete and comprehensive medical practice.

"Pay is according to rank; and, including subsistence and quarters allowances for an officer with dependents, amounts to an annual sum of \$3,905 for a captain and \$3,152 for a first lieutenant; or, without dependents, to an annual sum of \$3,450 for a captain and \$2,696 for a first lieutenant. In addition, reimbursement is made for travel to duty station and return."

WHY COOPERATION NOW IS VITAL

Referring to the poll which is being taken of the entire medical profession by the Committee on Medical Preparedness of the American Medical Association (see accompanying box), *The Journal of the A.M.A.* made the following comments in its July 13, 1940, issue:

"It is the desire of the authorities should an emergency arise, to place every individual capable of rendering aid in the position in which he can be of the utmost service, and also naturally where his training and his experience most definitely qualify him.*** Obviously, as physicians are needed, an attempt will be made to supply them through this mechanism. If conscription should become necessary, every effort will no doubt be made to assign physicians to work for which they are especially suited. Those who have failed to cooperate will naturally take the chance of being assigned to any kind of service which may offer, and perhaps far less possibility of rendering the quality of aid they are capable of rendering."

Dr. Charles Lukens, Toledo, won the Wendell Phillips Trophy, emblematic of championship among the past-presidents of the American Medical Golfing Association, at the 26th annual tournament, June 10, at the Winged Foot Golf Club, Mamaroneck, N. Y. Dr. J. J. Marek, Cleveland, was one of the winners in the 36-hole championship flight.

Proceedings of the Council

Plans for Medical Preparedness Program in Ohio Made at Mid-Summer Meeting, July 7; Important Sub-Committee Appointments Confirmed; Advertising Rules Adopted

A MEETING of The Council of the Ohio State Medical Association was held Sunday, July 7, 1940, State Headquarters Office, Columbus, with the following in attendance: President Skipp, President-Elect Paryzek; Councilors Hogue, McNamee, Rutledge, Goehring, Swan, Seiler, Sherburne, and Burley; Dr. Hein, chairman of the Committee on Public Relations and Economics and delegate to the A.M.A.; Drs. Brush and Kiely, delegates to the A.M.A.; Executive Secretary Nelson, Assistant Executive Secretary Saville, and Director of Public Education Aszling.

On motion by Dr. McNamee, seconded by Dr. Swan and carried, minutes of the meetings of The Council held May 13 and May 15, 1940, Cincinnati, were approved as published in the June issue of *The Journal*.

It was announced that the membership as of July 6, 1940, was 6,240 compared to 6,163 as of the same date a year ago and to 6,388 as of December 31, 1939.

Members of The Council reported on activities in their respective Councilor Districts.

ANNUAL MEETING

Comments regarding the recent 1940 Annual Meeting, Cincinnati, were called for by President Skipp. Members of The Council expressed themselves as believing the Cincinnati meeting was highly satisfactory and one of the best in the history of the Association. Members of the various committees on arrangements of the Cincinnati Academy were congratulated on their efficiency in handling local details.

Financial Report—Dr. Sherburne, chairman of the Committee on Auditing and Appropriations, presented in detail a financial report on the 1940 Annual Meeting, which showed a balance of \$1,492.36 in the Annual Meeting fund.

1941 Meeting—There was a general discussion regarding plans for the 1941 sessions of the House of Delegates to be held in Cleveland during the week of the 1941 session of the American Medical Association in that city. The Executive Secretary was instructed to make suitable arrangements for a headquarters hotel and meeting place for the House of Delegates.

NEW YORK SESSION OF A.M.A.

Reports regarding the recent session of the American Medical Association held in New York City were presented by Drs. Hein, Brush, Kiely, Skipp, and the Executive Secretary. Members of

The Council were urged by President Skipp to review the Proceedings of the House of Delegates of the A.M.A. as published in the June 22 and June 29, 1940, issues of *The Journal of the A.M.A.*

MEDICAL PREPAREDNESS

After review of the action of the House of Delegates of the A.M.A. regarding medical preparedness and discussion of a communication dated June 22 from Dr. Olin West, Secretary of the A.M.A., asking this Association to nominate a member to act as a liaison between this Association and the Committee on Medical Preparedness of the A.M.A., The Council adopted, on motion by Dr. Sherburne, seconded by Dr. McNamee, and carried, a statement of policy, authorizing the appointment by President Skipp of a Committee on Medical Preparedness and nominating Dr. Paryzek, the President-Elect, as chairman of the committee and as liaison officer between the Ohio State Medical Association and the Committee on Medical Preparedness of the A.M.A. (See page 878, this issue of *The Journal* for text of statement).

President Skipp announced that he would appoint the 11-member Committee on Medical Preparedness under the chairmanship of Dr. Paryzek, pursuant to the above action of The Council, at an early date. The Executive Secretary announced that the Headquarters Office had a complete list of Ohio physicians holding commissions in the Army and Navy Medical Reserve Corps and the Ohio National Guard.

COMMITTEE APPOINTMENTS

Communications from Dr. Hein, chairman of the Committee on Public Relations and Economics, and Dr. Cummer, chairman of the Committee on Education, suggesting personnel for various sub-committees were considered and, on motion by Dr. Seiler, seconded by Dr. Swan and carried, the following sub-committee appointments for the ensuing year were confirmed:

Sub-Committee on Legislation—Dr. Ralph M. Watkins, Cleveland, *chairman*; Dr. O. J. Walker, Youngstown, *vice-chairman*; Dr. Emil R. Sweptson, Cincinnati; Dr. J. C. Larkin, Hillsboro; Dr. Clyde M. Fitch, Portsmouth; Dr. A. Howard Smith, Marietta; Dr. I. B. Harris, Columbus; Dr. W. W. Trostel, Piqua; Dr. Carl Sawyer, Marion; Dr. Jay W. Calhoon, Uhrichsville; Dr. J. W. Schoolnic, East Liverpool; Dr. John M. Van Dyke, Canton; Dr. James G. Blower, Akron; Dr.

M. D. Shilling, Ashland; Dr. George F. Linn, Norwalk; Dr. D. J. Slosser, Defiance; and Dr. A. A. Brindley, Toledo.

Sub-Committee on Workmen's Compensation—Dr. Barney J. Hein, Toledo, *chairman*; Dr. D. M. Glover, Cleveland; Dr. Drew L. Davies, Columbus; Dr. Malcolm Cook, Hamilton; Dr. Robert L. Eastman, Mt. Vernon; Dr. J. Craig Bowman, Upper Sandusky; and Dr. John H. Skavlem, Cincinnati.

Sub-Committee on Public Health Education—Dr. Carl A. Wilzbach, Cincinnati, *chairman*; Dr. V. C. Rowland, Cleveland; Dr. C. I. Stephen, Ansonia; Dr. James A. Doull, Cleveland; Dr. F. L. Shively, Dayton; Dr. Edward King, Cincinnati; Dr. M. D. Shilling, Ashland; Dr. R. K. Ramsayer, Canton; Dr. C. E. Hufford, Toledo; and Dr. L. D. Bonar, Mansfield.

Sub-Committee on Regional Postgraduate Lectures—Dr. Clyde L. Cummer, *chairman*; Dr. S. H. Ashmun, Dayton, *vicc-chairman*; Dr. James M. Pierce, Cincinnati; Dr. Cecil Striker, Cincinnati; Dr. Louis N. Jentgen, Columbus; Dr. R. O. Egeberg, Cleveland; Dr. H. M. Clodfelter, Columbus; Dr. John Noll, Youngstown; Dr. J. L. Webb, Nelsonville; Dr. C. L. Barrett, Bellefontaine; and Dr. D. J. Kindel, Cincinnati.

Special Committees—President Skipp appointed the following special committees for the ensuing year, which appointments were approved, on motion by Dr. McNamee, seconded by Dr. Burley and carried:

Advisory Committee to the Woman's Auxiliary—Dr. R. L. Rutledge, Alliance, *chairman*; Dr. Carl Goehring, Steubenville; and Dr. Barney J. Hein, Toledo.

Committee on Poor Relief—Dr. Walter K. Stewart, Youngstown, *chairman*; Dr. Fowler B. Roberts, Akron; Dr. F. S. Van Dyke, Canton; Dr. W. L. Denny, Cambridge; Dr. R. N. Whitehead, Bowling Green; Dr. E. O. Swartz, Cincinnati; Dr. Dow Allard, Portsmouth; Dr. E. B. Gillette, Toledo; Dr. R. S. Binkley, Dayton; and Dr. F. C. Callaway, Marysville.

ADVERTISING REGULATIONS

The following supplemental regulations governing the acceptance of advertising in *The Ohio State Medical Journal* were adopted, on motion by Dr. McNamee, seconded by Dr. Seiler and carried:

"In order to bring about a uniformity in regulations governing advertising published in *The Ohio State Medical Journal* and to provide standards for the acceptance of advertising not already covered by existing regulations, the following supplemental regulations are herewith adopted by The Council of the Ohio State Medical Association, effective September 1, 1940:

"1. An advertisement of an institution provid-

ing full hospital service or medical, nursing and convalescent care on a limited scale may be accepted if such institution is on the list of Registered Hospitals and Related Institutions of the American Medical Association.

"2. An advertisement of a school or institution engaged in the training of technicians and office assistants of various types may be accepted if such school or institution has the approval of the appropriate council or bureau of the American Medical Association and of the component medical society of the county where it is located.

"3. Institutional advertising shall not carry the name of any physician associated with the institution who is not a member of the American Medical Association.

"4. Advertising of laboratories may be accepted if the laboratory has the approval of the county medical society."

REPORT OF COMMITTEE ON MEDICAL SERVICE PLANS

On behalf of Dr. Smith, chairman of the Committee on Medical Service Plans, the Executive Secretary presented a report on a meeting of that committee held in the State Headquarters Office, Columbus, June 30. At that meeting the committee laid preliminary plans for activities leading up to the introduction of an enabling act next January when the State Legislature meets in regular session. The following sub-committees of the main committee were appointed by Dr. Smith:

Sub-Committee on Drafting of Enabling Act—Dr. Dow Allard, Portsmouth, *chairman*; Dr. Carl R. Damron, Mansfield; and Dr. Robert C. Rothenberg, Cincinnati.

Sub-Committee on Educational Campaign—Dr. Jonathan Forman, Columbus, *chairman*; Dr. Fred M. Douglass, Toledo; and Dr. Carl W. Brown, Lancaster.

Sub-Committee to Draft a Basic Medical Service Plan—Dr. Robt. T. Allison, Jr., Akron, *chairman*; Dr. C. L. Barrett, Bellefontaine; Dr. John E. Raushkolb, Cleveland.

Steering Committee—Dr. G. A. Woodhouse, Pleasant Hill, *chairman*; Dr. Howard W. Brettell, Steubenville; and Dr. Jonathan Forman, Columbus.

The report stated that these sub-committees would meet between now and early in September, when the main committee will hold another meeting for the purpose of receiving recommendations of the sub-committees and proceeding with the main phases of the committee's work.

MISCELLANEOUS

Tuberculosis Program—Dr. Louis Mark, Columbus, governor for Ohio of the American College of Chest Physicians, appeared before The Council requesting the cooperation of the Ohio

State Medical Association in setting up a tuberculosis educational program in Ohio through an organization paralleling the Councilor District set-up of the State Association, with appointments to the supervising committee to be made by members of The Council of the State Association. On motion by Dr. Sherburne, seconded by Dr. Paryzek and carried, the proposition was referred to the Committee on Public Relations and Economics for study and subsequent report to The Council.

Resolutions Referred—Resolutions A and F, adopted by the House of Delegates at the recent 1940 Annual Meeting in Cincinnati (see Proceedings of House of Delegates, June issue, *The Ohio State Medical Journal*) were referred to the Committee on Public Relations and Economics on motion by Dr. McNamee, seconded by Dr. Goehring and carried.

Report on Pharmacopoeial Convention—A report by Dr. Samuel Rosenfeld, Jr., Columbus, delegate from this Association to the recent Pharmacopoeial Convention held at Washington, D. C., was presented to The Council. On motion by Dr. McNamee, seconded by Dr. Sherburne and carried, the report was ordered filed and Dr. Rosenfeld was given a vote of appreciation for attending the convention and presenting the report.

Drug Legislation—A communication from the Cleveland Academy of Medicine, requesting the State Association to sponsor legislation which would preclude the sale of certain drugs except on prescription of a physician, was read and discussed. On motion by Dr. Hogue, seconded by Dr. Paryzek and carried, the communication was referred to the Committee on Public Relations and Economics for consideration.

Report on Malpractice Case—A report on the final outcome of a malpractice case, which had been discussed by The Council at its meeting on May 13 and which had been investigated by the Judicial and Professional Relations Committee, was presented by the Executive Secretary.

There being no further business, The Council adjourned to meet at the call of The President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Tax on Alcohol Increased

The United States Senate recently rejected a proposed amendment to the Revenue Act of 1940 which would have exempted from the increased tax on distilled spirits all alcohol used exclusively for manufacturing drugs. The Federal tax of \$2.25 per gallon on alcohol, which has been in effect for several years, was increased July 1 to \$3.00 per gallon, as one of the sources of additional revenue for the government's preparedness program.

Unique Exhibit at State Fair In Columbus, August 24-30, Planned By the State Association

A health education exhibit to be sponsored by the Ohio State Medical Association at the 1940 Ohio State Fair is being planned by the Bureau of Public Education. The fair will be held August 24 through August 30 at the State Fairgrounds in Columbus. According to present arrangements, the exhibit of the State Association will occupy a prominent area in the brick structure formerly known as the Manufacturers' Building. Neighboring exhibits will be those of the Ohio State Dental Society, the Ohio Public Health Association, the Ohio Division of the Women's Field Army, and the State Department of Health.

Although as this issue of *The Journal* went to press final arrangements had not been completed, it is planned to make the State Association's 1940 exhibit different from similar exhibits which have previously been staged in Ohio. It will be based on the so-called "audience participation" technique, which has proved successful in the Medicine and Public Health Building at the New York World Fair. The experience in New York has proved to the satisfaction of authorities there that health lessons can be driven home much more forcefully if the visitor is given an opportunity to do something tangible which will aid him to absorb and remember the points emphasized.

Following this technique, the Bureau of Public Education is planning the 1940 Fair exhibit so that it will most effectively demonstrate to the thousands of fair visitors the wisdom of preventive medicine. This will be done by means of a "health quiz" which persons visiting the exhibit may use to test themselves, have their answers checked on the spot, and compare with a set of correct answers furnished by the Bureau.

Physicians can aid in making the exhibit a success by suggesting to their patients that they don't miss it when they visit the State Fair in August.

1940 N. Y. Graduate Fortnight

The 1940 Graduate Fortnight of The New York Academy of Medicine will be held from October 14 to 25.

The subject of this year's session is "Infections". The carefully integrated program will include morning panel discussions, afternoon clinics and clinical demonstrations at many of the hospitals of New York City, evening addresses, and appropriate exhibits. A complete program and registration blank may be secured by addressing: Dr. Mahlon Ashford, New York Academy of Medicine, 2 East 103rd Street.

Future Applicants Must Be Citizens, Medical Board Rules at July 2 Meeting; Names of Those Granted Licenses

ALL future applicants for licenses to practice medicine and surgery in Ohio and for certificates to practice osteopathy and the limited branches of medicine must be citizens of the United States, a regulation unanimously adopted by the State Medical Board at a meeting in Columbus, July 2, provides.

At the same meeting, the Board announced the results of its June 3-6 examinations. Licenses to practice medicine and surgery were granted 256 medical graduates. Certificates were granted 15 osteopaths, 22 chiropodists, four mechano therapists, three cosmetic therapists, 16 masseurs and nine chiropractors.

Dr. William C. Marsh, Toledo, a graduate of Ohio State University College of Medicine, made the highest grade—88.4 per cent—in the medical and surgical examinations. Another graduate of Ohio State, Dr. William B. Houston, Akron, was second with a grade of 88.3 per cent. Dr. Joseph Selman, Cleveland, a graduate of Western Reserve University School of Medicine, took third place, with a grade of 88 per cent.

CERTIFICATES REVOKED

The Board revoked the certificate of Modestino Coppolo, Cleveland, mechano therapist, and that of Virgil M. George, Columbus, chiropractor, for violations of the rules and regulations governing limited practitioners.

The license granted through reciprocity to Dr. Reuben B. Jackson, Nashville, Tenn., to practice medicine and surgery in Ohio, was revoked because of his conviction of a felony and violation of the Federal narcotic laws.

F. D. Dornbush, osteopath, Wintersville, Jefferson County, against whom charges were pending for the illegal practice of medicine, voluntarily submitted his certificate for revocation by the Board.

Clara F. Brouse, R. N., was re-appointed a members of the Nurses' Examining Committee for a term of three years.

Those granted licenses to practice medicine and surgery after having passed the June examinations were:

OHIO STATE UNIVERSITY COLLEGE OF MEDICINE

Jack A. Adelman, Columbus; John T. Bakody, Columbus; William K. Bannister, Lima; Emil L. Barrows, Cincinnati; Lloyd A. Boehm, Toledo; James H. Boyer, Hillsboro; Richard H. Brooks, Huntsville; Alex Brown, Cleveland; William R. Calland, Barberton; John Neal Carnes, Gallipolis; Robert H. Cassidy, Columbus; Thomas E. Clark, Columbus; Virgil Lee Cross, Athens; Charles J. Deishley, Columbus; Richard G. Deucher, Cleve-

land; Jack A. Dillahun, Columbus; Selwyn Drummond, Dayton; Charles H. Duncan, Columbus.

Joseph C. Forrester, Columbus; Thomas E. Fox, Columbus; Francis W. Gallagher, Columbus; Joseph A. Geer, Lancaster; Morris Goldberg, Columbus; Ralph R. Goldin, Lima; Ned B. Griner, Circleville; Frederick R. Guilford, Columbus; Robert S. Hamm, Columbus; Victor E. Hillegass, Akron; Robert B. Hines, Uhrichsville; Martin M. Horowitz, Columbus; William B. Houston, Akron.

Donald W. Jones, Cincinnati; Harold L. Keiser, Fremont; William M. Kuntz, Columbus; Florence R. Lenahan, Columbus; Rodger E. MacQuigg, Columbus; Mary H. Markham, Columbus; William C. Marsh, Toledo; Paul G. Meckstroth, Wapakoneta; Jerome H. Meyer, Cleveland; Richard L. Morgan, Marion; Lloyd E. Morris, Jr., Columbus; Thomas J. O'Neill, Columbus; Lester G. Parker, Sandusky; Owen F. Patterson, Holmesville; Richard Patton, Jr., Columbus; Donald J. Pearson, Lakewood; Michael H. Perlin, Columbus; Ernest Leo Perri, Smithfield; Gordon A. Pilmer, Ashtabula; Attilio D. Puppel, Columbus.

James I. Rhiel, Portsmouth; Franklyn G. Rice, Archbold; John S. Rice, Columbus; Carl Wm. Roth, Columbus; Joseph N. Schaeffer, Dayton; Raymond J. Scheetz, Youngstown; Bernard M. Schneider, Cleveland; Edward R. Schumacher, Columbus; Julius P. Schweitzer, Jr., Cleveland; George X. Schwemlein, Cincinnati; Frank T. Sheehan, Columbus; Aaron I. Simon, Cleveland; Merl B. Smith, Toledo; Robert Benjamin Smith, Akron; Robert G. Smith, Columbus; William A. Smith, Columbus; Andrey W. Stevenson, Toledo; Walter M. Stout, Columbus.

James J. Thomas, Alliance; Don A. Urban, Zanesville; Bernard H. Weinstein, Steubenville; Joseph E. Wharton, Athens; Robert M. Wilson, Steubenville; Ben R. Wiltberger, Columbus; Edward B. Young, Lima; Robert E. Zipf, Dayton.

UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE

William C. Ahlering, Cincinnati; Edwin A. Ash, Forest; Stanley H. Axelrod, Cincinnati; Earle G. Baxter, Cincinnati; Edward J. Baxter, Cincinnati; Emily L. Behrman, Cincinnati; Paul E. Bennett, Cincinnati; Phillip H. Best, Cincinnati; Robert A. Biles, Cincinnati; Charles S. Blase, Cincinnati; Robert R. Bonar, Cincinnati; Harry A. Bremen, Dayton; Paul C. Briede, Hamilton; Robert H. Broh-Kahn, Cincinnati; Richard R. Buchanan, Cincinnati; Paul A. Bunn, Cleveland; Charles E. Cassaday, Columbus; Harold A. Cassidy, Cincinnati; Edgar M. Correll, Cincinnati.

George A. De Stefano, Canton; James Gordon J. Dixon, Cincinnati; Luebert Docter, Cincinnati; Walter G. Engel, Cincinnati; Melvin T. Gorsuch, Cincinnati; Esther M. S. Gross, Cleveland; Max Haas, Portsmouth; Harry K. Hines, Cincinnati; Jerome P. Hochwalt, Dayton; George R. Hodell, Hamilton; Leroy V. Kaufman, Cincinnati; Benjamin P. Kersker, Cincinnati; Sol Kessel, Cincinnati; Charles F. Kiefer, Cincinnati; Bert D. Krug, Dayton; Howard F. Kuhn, Cincinnati.

Robert Winding Lee, Toledo; Roland A. Leslie, Cincinnati; Walter C. Lobitz, Jr., Cincinnati; Dorothea G. Loeffbourrow, Cincinnati; Sam Z. Maroon, Cincinnati; Aaron S. Michelson, Cincinnati; Sherman Miller, Cincinnati; Walton H.

Miller, Jr., Cincinnati; Stanley B. Minish, Cincinnati; Franklin B. Moosnick, Cincinnati; Celia M. Nelson, Cincinnati; Robert J. Ogborn, Cincinnati; H. Glenn Overley, Cincinnati.

Robert J. Patterson, Cincinnati; John H. Payne, Cincinnati; Aurelia M. Potor, Campbell; Floyd A. Potter, Toledo; James J. Quilligan, Jr., Columbus; Oscar Ravin, Toledo; Jack J. Rheingold, Cincinnati; Bradford D. Rodgers, Cincinnati; Ross P. Rusk, Jr., Cadiz; Cecil F. Rust, Camden; Otto H. Salsbery, Cincinnati; Edward W. Sanders, Bellevue; Albert Sapadin, Cincinnati; John W. Schonwald, Oxford; Adolph Shor, Cincinnati; Webster C. Smyers, Dayton; Harold E. Snedden, Bellefontaine; Mitchell A. Spyker, Columbus; Solomon H. Statman, Cincinnati; Elmer F. Svoboda, Cleveland.

Stanley Vangrov, Dayton; John G. Waddell, Cincinnati; Raymond H. Weaver, Cincinnati; Carl J. Weissmann, Cincinnati; Robert G. Wetterstrom, Norwood; Russell F. Wiggers, Cincinnati; Henry A. Zimmerman, Cincinnati.

WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE

Roy S. Averill, Jr., Cleveland; Richard Wm. Baetz, Amherst; Robert R. Bartunek, Cleveland; Herbert J. Bavor, Berea; Neil P. Beall, Jr., Cleveland; Norma A. Beall, Cleveland; Henry E. Boehmer, Cleveland; Daniel A. Brody, Youngstown; John Merton Cook, Cleveland; William C. Crothers, Cleveland; Robert M. De Witt, Akron; Janet T. Dingle, Cleveland; Jac. Sidney Geller, Shaker Heights, Cleveland; James S. Greetham, Fremont; Milton H. F. Gustafson, Cleveland; Hiram H. Hardesty, Cleveland; Edward R. Hill, Cleveland; Helena Hoelscher, Cleveland; Ben Eugene Jacoby, Marion; Charles H. Jobe, Cleveland; James B. Johnson, Cleveland.

Roger K. Kalina, Cleveland; Gerald T. Kent, Cleveland; Joseph Kovacs, Jr., Cleveland; Willard B. Kreutzberg, Cleveland; William T. Krichbaum, Youngstown; Alfred P. Lindemayer, Cleveland; Mortimer Lubert, Cleveland; Rufus P. McCormick, Cleveland; Charles W. Mathias, Youngstown; Edward A. Millonig, Dayton; Joseph L. Modic, Cleveland; Jacob Moses, Cleveland; Marie Y. Murray, Portsmouth.

Richard C. Neely, Jr., Cleveland; John R. Nickerson, Akron; Swen D. Nielsen, Elyria; Keith C. Noble, Cleveland; Aaron Paley, Cleveland; Carroll A. Peabody, Cleveland; George Alvin Peabody, Cleveland; Valerian J. Picha, Cleveland; Anthony M. Puleo, Cleveland Heights; Louis G. Ralston, Youngstown; Hermann S. Rhu, Jr., Marion; Philip J. Robeck, Cleveland.

David H. Schneider, Cleveland; Leonard M. Schuman, Cleveland; Joseph Selman, Cleveland; Robert O. Strauch, Dayton; Jack P. Thiel, Cleveland; Robert O. Turek, Cleveland; Edward L. Waisbrot, Canton; Jay R. Wells, Cleveland; James C. White, Cleveland; Lester L. Williams, Mt. Vernon; Edward Zidd, Cleveland; Samuel R. Ziegler, Youngstown.

OTHER SCHOOLS

Emerson R. Hatcher, Columbus; William D. Holden, Cleveland, Cornell University; Ralph D. Bolton, Cleveland Heights; Sarah K. Curtis Bolton, Cleveland; David D. Colucci, Youngstown, Creighton University; William G. Harris, Martins Ferry, George Washington University; Harold C. Epstein, Cleveland Heights; Douglas P. Graf, Cincinnati; Walter H. Pritchard, Cleveland; Graham T. Webster, Cleveland, Harvard University; Leo M. Goodman, Akron, William McConkey Keller,

Cleveland, Richard L. Wagner, Portsmouth, Albertus C. Wyker, Columbus, Jefferson Medical College; William D. Collier, Youngstown, Johns Hopkins University; Harold A. Streit, Cleveland, Loyola University; David C. James, Cleveland, New York University; Raymond E. Smalley, Northwestern University; Robert C. Greenwood, Van Wert, Rush Medical College; Robert Wm. Van Bokkelen, Columbus, University of California; Stewart McKee Wilson, Columbus, University of Kansas; Sylvia B. Sadugor, Cleveland, University of Michigan; Mary Jane Kaufholz, Canton, University of Pennsylvania; Michael Yukevich, Steubenville, University of Pittsburgh; Robert D. Moore, Chicago, University of Rochester; Donald E. Barker, Cincinnati, University of Wisconsin; Lewis J. Gumper, Dayton, Washington University; Isadore A. Mirsky, Cincinnati, McGill University; David Horwitz, Louis J. Lester, Cleveland, University of Toronto; Nicholas Codik, Cleveland, Royal University of Modena; Max Houser, University of Bonn; Sally F. Roos, University of Freiburg; Fritz Eberstadt, Adolph Wolff, Cleveland, University of Heidelberg; Nintcho G. Nintcheff, University of Montpellier; Siegfried Koppel, Cleveland, University of Munich; Karl W. Ascher, Cincinnati, German University of Prague; Aladar Winter, Cleveland, University of Szeged; Robert Brandt, Maximilian R. Burger, Cincinnati, Richard Gomer, Paul Hofmann, Gustav Kollmann, Kurt Tschiasny, Cincinnati, Rudolph Weiss, Cleveland, Otto Wilton, Cincinnati, University of Vienna; Fritz Glaser, Cleveland, University of Wien.

Licenses to practice medicine and surgery were also granted Charles E. Anzinger, Springfield, and Robert F. Zeller, Mansfield, Loyola University, who passed the June, 1939 examinations; and Bernard L. Pelton and James K. Skahen, Toledo, College of Medical Evangelists, and John P. A. Veit, Youngstown, Marquette University, who were successful in the December, 1939 examinations.

LICENSED THROUGH RECIPROCITY

The Board also granted the following licenses to practice medicine and surgery through reciprocity with other states:

Floyd J. Barkman, Cincinnati, University of Colorado; Robert J. Buckman, Cincinnati, Andrew W. Cannava, Cincinnati, University of Louisville; William B. Chamberlin, Jr., Cleveland, Harvard University Medical School; Kendrick T. Edmonds, Delphos, University of Louisville; Deane C. Epler, Columbus, Northwestern University; Raymond D. Epstein, Cleveland, Wayne University; Charles H. Frank, Canton, University of Nebraska; Eugene W. Gessler, Cleveland, University of Illinois; Edward Goodstitt, Cleveland, Marquette University; Harold C. Haynie, Columbus, Vanderbilt University; Benjamin C. Jones, Jr., Cincinnati, University of Virginia; Valdemar M. Jordan, Cleveland, College of Physicians and Surgeons, Columbia.

Maurice K. Laurence, Springfield, Tufts Medical College; Albert Legow, Cleveland, Washington University; Townsend G. Lowe, Steubenville, Meharry Medical College; Edward P. Minninger, Cleveland, University of Kansas; Samuel A. Molle, Toledo, Wayne University; Frank R. Moore, Cincinnati, Duke University; Alston E. Morrison, Marion, University of Michigan; Clyde

M. Madig, Akron, University of Iowa; Ralph V. Nicosia, Dayton, St. Louis University; Delbert J. Parsons, Tippecanoe City, Indiana University; William B. Patterson, Smithfield, Hahnemann Medical College; John L. Plymale, Marion, Washington University; Archibald D. Price, Chardon, Indiana University; Henry F. Saunders, Cincinnati, University of Toronto; Edward G. Seybold, Newark, University of Michigan; Robert W. Stevens, Newark, St. Louis University; Sloan J. Wilson, Columbus, University of Kansas; Albert E. Cremer, Lima, St. Louis University; Robert E. Williams, Barberton, University of Nebraska.

Special Board Examinations

American Board of Anesthesiology: Written. Various centers, Feb. 20, 1941. Final date for filing application is December 21. Oral. Cleveland, preceding A.M.A. convention. Sec., Dr. Paul M. Wood, 745 Fifth Ave., New York.

American Board of Dermatology and Syphilology: December, 1940. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Internal Medicine: Written. October 21. Applications must be on file not later than September 1. Sec., Dr. William S. Middleton, 1301 University Ave., Madison, Wis.

American Board of Neurological Surgery: Chicago, Oct. 18-19. Sec., Dr. R. Glen Spurling, 404 Brown Bldg., Louisville, Ky.

American Board of Obstetrics and Gynecology: Written. Various centers, Jan. 4, 1941. Final date for filing applications, Oct. 5. Sec., Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pa.

American Board of Ophthalmology: Oral. Cleveland, Oct. 5. Sec., Dr. John Green, 6830 Waterman Ave., St. Louis.

American Board of Orthopaedic Surgery: Oral and written. New Orleans, January, 1941. Final date for filing application is November 15. Sec., Dr. Fremont A. Chandler, 6 N. Michigan Ave., Chicago.

American Board of Pediatrics: Memphis, Tenn., Nov. 17, preceding the annual meeting of the American Academy of Pediatrics. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

American Board of Psychiatry and Neurology: Oral. New York, December 18-19. Final date for filing application is October 8. Sec., Dr. Walter Freeman, 1028 Connecticut Ave., N.W., Washington, D. C.

American Board of Radiology: Boston, Sept. 26-29. Sec., Dr. Byrl R. Kirklin, 102-110 Second Ave., S.W., Rochester, Minn.

American Board of Surgery: Written. Part I. Various centers, October 21. Final date for filing application is September 15. Sec., Dr. J. Stewart Rodman, 225 S. Fifteenth St., Philadelphia.

American Board of Urology: Oral and written. Chicago, February, 1941. Applications must be on file not later than Oct. 15. Sec., Dr. Gilbert J. Thomas, 1009 Nicollet Ave., Minneapolis.

Copies of Osler Painting Offered Physicians Free on Request

"Osler at Old Blockley", a painting in oil by Dean Cornwell, was unveiled at the dedication of the Osler Memorial Building on the grounds of the Philadelphia General Hospital in June and was later exhibited at the American Medical Association convention in New York.

The painting depicts one of Osler's outstanding contributions to medicine, namely, bringing medical students to the bedside of the patient



for clinical study. In the painting Osler is shown at the side of an elderly patient on the hospital grounds. Surrounding Osler and the patient are internes who have stopped with him as they were on their way to the autopsy house to observe one of his famous postmortems. This autopsy house, now the only Osler Memorial Building in the United States, is shown in the background. This memorial was made possible by a grant from John Wyeth & Brother, Philadelphia.

"Osler at Old Blockley" is the second painting in the series "Pioneers of American Medicine" sponsored by John Wyeth & Brother as part of a project to highlight the contributions of Americans to the advancement of medicine. "Beaumont and St. Martin" was the first painting in the series.

Colored reproductions of "Osler at Old Blockley", suitable for framing may be obtained free by addressing requests to the Ohio State Medical Association, 79 E. State Street, Columbus, Ohio, for forwarding to John Wyeth & Brother.

Cincinnati—"Conserving Human Values" was the topic discussed by Dr. Emerson A. North at a meeting of the Woman's City Club.

Columbus—Dr. Charles A. Doan, chairman of the department of medicine, Ohio State University College of Medicine, delivered the commencement address at Albany Medical College, Albany, N. Y.

Ten Centers Selected for This Fall's Series of Regional Postgraduate Lectures; Dates, Places, Subjects Listed

THE third series of Regional Postgraduate Lectures to be presented in 10 sections of the state this Fall represents the most extensive undertaking in postgraduate teaching ever attempted by the Ohio State Medical Association.

Based on suggestions received from local chairmen and members who have attended previous postgraduate meetings, the Committee on Education and its Sub-Committee on Regional Postgraduate Lectures have revamped the setup so that instead of six evening sessions, two weeks apart, with two speakers at each session, the 1940 course will consist of three meetings, about a month apart. Four 45-minute talks will be presented at each meeting, two in the late afternoon and two in the evening.

Under this plan a physician who desires to attend the complete course will have to make only three trips instead of six, but he will hear the same number of addresses. Arrangements will be made to serve a moderate-priced dinner to all who attend so that there will be an opportunity for a social hour between the afternoon and evening sessions.

REGIONS AND COUNTIES IN EACH

In order to make the lectures more accessible to more members, the number of regional centers has been increased from five to ten. These 10 regions comprise all the counties of the state, with the exception of Cuyahoga and Hamilton, where continuous postgraduate programs are presented.

Regional centers selected, and the counties comprising each region, follow:

Region A—Napoleon. Counties: Williams, Fulton, Lucas, Defiance, Henry, Wood, Paulding, Putnam, Hancock.

Region B—Tiffin. Counties: Ottawa, Sandusky, Erie, Seneca, Huron, Wyandot, Crawford, Marion.

Region C—Mansfield. Counties: Lorain, Medina, Ashland, Wayne, Richland, Morrow, Knox, Holmes, Coshocton.

Region D—Warren. Counties: Lake, Ashtabula, Geauga, Trumbull, Summit, Portage, Mahoning, Stark, Columbiana.

Region E—Cadiz. Counties: Tuscarawas, Carroll, Jefferson, Harrison, Guernsey, Belmont.

Region F—Athens. Counties: Muskingum, Noble, Monroe, Washington, Morgan, Perry, Hocking, Athens, Vinton, Meigs.

Region G—Columbus. Counties: Union, Delaware, Licking, Madison, Franklin, Fairfield, Fayette, Pickaway.

Region H—Wapakoneta. Counties: Van Wert, Allen, Hardin, Mercer, Auglaize, Logan, Shelby, Darke, Miami, Champaign.

Region I—Lebanon. Counties: Preble, Montgomery, Clark, Greene, Butler, Warren, Clinton, Clermont, Brown, Highland.

Region J—Portsmouth. Counties: Ross, Pike, Jackson, Adams, Scioto, Lawrence, Gallia.

While members of the Association will be notified by mail of the dates for the meetings in their respective regions, every member is welcome to attend sessions elsewhere. For instance, if a member located in one of the counties in Region A misses one of the sessions in Napoleon, he may attend a session at Wapakoneta, which is the center for Region H.

There will be no registration fee for attendance at these lectures and dinner will be served at a nominal cost.

The Sub-Committee on Regional Postgraduate Lectures is now selecting speakers for the various sessions. Every effort is being made to obtain competent men, with extensive clinical experience, and ability to give a practical message.

SUBJECTS TO BE PRESENTED

This year's course, which is the third of a planned five-year postgraduate program, will cover the following subjects:

1. The Child and His Heart.
2. Management of Heart Failure in the Home.
3. Meningitides in Children.
4. The Clinical Approach to the Positive Mantoux Test.
5. The Anemic Patient.
6. Practical Uses of Sulfanilamide and Its Derivatives.
7. Deficiencies and Anemia.
8. Modern Treatment of Pneumonia.
9. Emergency Treatment of Roadside Injuries.
10. Complications of the Common Cold.
11. Fractures and Pseudo-Fractures of the Spine.
12. Childhood Ear Infections: Proper Treatment to Prevent Deafness.

Speakers will be expected to stress diagnosis and treatment in presenting these subjects. An opportunity will be given those who attend to join in a general discussion at the close of each session.

MEETING PLACES AND DATES

Following a survey of local facilities, the local chairmen of arrangements, appointed by the host county medical societies, have selected the follow-

ing meeting places, the sessions to be held on the dates indicated:

Region A—Napoleon. Parish Auditorium, St. Paul's Lutheran Church. Thursday, Sept. 19, Oct. 10, Nov. 14. Dr. Ronald B. Kieffer, local chairman.

Region B—Tiffin. Meetings at Tiffin Theatre, dinner at Hotel Shawhan. Wednesday, Sept. 25, Oct. 23, Nov. 27. Dr. E. H. Porter, local chairman.

Region C—Mansfield. Mansfield-Leland Hotel. Wednesday, Sept. 18, and Oct. 16; Thursday, Nov. 14. Dr. Mabel Emery, local chairman.

Region D—Warren. Warner Hotel. Wednesday, Sept. 18, Oct. 30, Nov. 27. Dr. Paul C. Gauchat, local chairman.

Region E—Cadiz. Hotel General Custar. Thursday, Sept. 26, Oct. 24, Nov. 28. Dr. F. Foster Dye, local chairman.

Region F—Athens. Hotel Berry. Thursday, Sept. 26, Oct. 24, Nov. 28. Dr. John R. Sprague, local chairman.

Region G—Columbus. Deshler-Wallick Hotel. Wednesday, Oct. 9, Nov. 6, Dec. 4. Dr. Link M. Murphy, local chairman.

Region H—Wapakoneta. Elks' Home. Thursday, Sept. 26, Oct. 24, Nov. 28. Dr. Chas. C. Berlin, local chairman.

Region I—Lebanon. Meetings at Town Hall, dinner at Golden Lamb Hotel. Wednesday, Sept. 25, Oct. 23, Nov. 27. Dr. N. A. Hamilton, local chairman.

Region J—Portsmouth. American Legion Hall. Thursday, Oct. 3, Nov. 7, Dec. 5. Dr. Ross M. Gault, local chairman.

Announcement will be made soon regarding the subjects to be discussed on the various dates.

Arrangements for the courses are under the direction of the Sub-Committee on Postgraduate Lectures, consisting of Dr. Clyde L. Cummer, Cleveland, chairman; Dr. S. H. Ashmun, Dayton, vice-chairman; Dr. James M. Pierce, Cincinnati; Dr. Cecil Striker, Cincinnati; Dr. Louis N. Jentgen, Columbus; Dr. R. O. Egeberg, Cleveland; Dr. H. M. Clodfelter, Columbus; Dr. John Noll, Youngstown; Dr. J. L. Webb, Nelsonville; Dr. C. L. Barrett, Bellefontaine; Dr. D. J. Kindel, Cincinnati.

Further details concerning the meetings will appear in subsequent issues of *The Journal*.

For the first time in its long history, the University of Cincinnati College of Medicine Alumni Association recently elected a woman as its president—Dr. Mabel E. Gardner, Middletown. Other officers are: Dr. Daniel C. Rivers, Cincinnati, vice president; and Dr. Henry B. Freiberg, Cincinnati, secretary-treasurer.

Hospitals To Charge Separate Fee for Care of the New-Born

According to an article published July 1 by the *Cleveland Press*, a policy of charging separately for the care of mothers and infants in hospital maternity cases has been placed in effect by "practically all Cleveland hospitals". The article presented the following explanations regarding the new procedure, based on information from hospital executives:

"The new system will not result in increasing the total charge for maternity cases except in those hospitals which heretofore have been rendering the service at less than cost, it was explained by Guy Clark, secretary of the Cleveland Hospital Council.

"Mr. Clark pointed out that infant care, according to cost figures in use since 1930, has amounted to about 25 per cent of the cost of caring for the mother. The charge for each has been covered in the total hospital maternity bill in the past, except that the bill has not shown what proportion of the charge was for care of the infant.

"Affected by the new system will be all those who do not have contracts with the Cleveland Hospital Service Association and, in some cases, those who already have made maternity reservations.

"The hospital service association contracts have not covered care of the infant or of any children under one year of age heretofore, but the association has paid for infant care in maternity cases as an extra service. With contract holders covered for 21 days of hospitalization, in any contract year, the method has been simply to deduct one day from the total coverage for each four days the infant was in the hospital.

"Because of the new system, the latter practice will be discontinued beginning January 1, 1941, and responsibility for payment of the infant's hospital bill will be returned to the contract holder."

Physical Therapy Congress, Sept. 2-6

The 19th annual scientific and clinical session of the American Congress of Physical Therapy will be held September 2 to 6, inclusive, at Hotel Statler, Cleveland. The mornings will be devoted to an instructional seminar with the scientific program presented afternoons and evenings. This enables physicians to economize on time by attending both the instruction course and the annual convention during the same week. The instruction schedule is elective in character. The complete course consists of 12 lectures from a diversified list of 48. There will be a separate scientific program covering eye, ear, nose and throat subjects. Write for schedule, fees, etc., to the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Ill.

Message from the President

We Must Speed Up Our Efforts To Provide Better Programs To Meet the Medical Needs of the Indigent and Low-Wage Earners of Ohio Despite the International Crisis

By WM. M. SKIPP, M.D., YOUNGSTOWN

THE war abroad, with threatened involvement of our own country, has brought to our profession tremendous new responsibilities. In any preparedness program, preparation must be made for meeting the medical needs of the military forces in addition to the civilian population. I am confident that Ohio physicians, as good citizens and efficient doctors, will meet their obligations in this time of emergency.

However, while we are cooperating in efforts to meet the problems arising out of the international crisis, we must continue to guard our heritage. Let us speed up our efforts to try to solve some of our peace-time medical and health problems.

WE DARE NOT RELAX

Above all we dare not relax to the extent that influences detrimental to public health and the medical profession will slip by and gain a foothold in our nation. Certain forces are even working within our ranks—groups which for self-advancement would sacrifice our unity and open a gap through which outside forces could advance to destroy the progress which has been made in maintaining and preserving the health of the American people. Subversive groups in medicine cannot be tolerated. Fifth columns in the field of health must be routed.

The profession must guard against additional inroads of government into the field of medical care, especially advances which would place government control over medical and health activities which can, and should, be carried on through private endeavor. We know that excessive government control breeds inferior medical care. Even in times of emergency the standards of medical and health services must not be lowered. Let us fight to maintain the standards which have brought progress by keeping government supervision and interferences at a bare minimum. While doing so, let us redouble our support of constructive programs which will remove those conditions which have obstructed us in our efforts to prevent and cure disease, namely: unemployment, inadequate diet for many of our citizens, improper housing, unsanitary environment, etc.

ROLE OF GOVERNMENT

Obviously, government has some responsibility in efforts to improve the health of our people. It is the duty of the medical profession to see

that the benefits of modern medicine are made available to all, but some assistance from government is necessary to make this a reality. Government's part should be in the form of assistance and cooperation, not control and dictation. If the profession and government will cooperate on a sound basis, the medical and health of the medically indigent (those who can provide some necessities for themselves and their families but are hard-pressed to meet the costs of sickness) and the totally indigent can be solved. Society as a whole must share part of the responsibility. Public funds should be made available for such medical programs but there should be a minimum of government dictation, leaving the medical profession free to work out procedures which will adequately and efficiently meet the needs of the indigent sick.

MEDICAL CARE OF THE INDIGENT

The Committee on Poor Relief of the Ohio State Medical Association has worked out a practical plan for meeting the medical needs of the poor of our state. The suggested plan of the committee has been put into operation in many counties and is working quite well. This plan fits into the present state relief program which places the responsibility for providing medical care for the needy on city officials and county commissioners. Hospitalization remains the responsibility of the townships. Through the joint efforts of representatives of county medical societies and relief officials, satisfactory medical care programs for the needy have been established in many communities. Let me emphasize that the responsibility rests on local officials and county medical societies. Our state committee is anxious to assist when it is possible for it to do so but in the end the initiative must be taken locally. This is the correct procedure for we know that local responsibility and local administration always produce more satisfactory results than centralization of authority and administrative duties on a state or national basis.

AID FOR LOW-WAGE EARNER

Plans have been developed and are progressing for the organization of programs to assist the low-wage earner in meeting his medical and health problems. Several county medical societies and academies have drafted voluntary medical insurance plans, sponsored and controlled by the

medical profession. The State Association, through its Committee on Medical Service Plans, is assisting in making these programs a reality in communities where they are needed and where the medical profession wants to offer prepayment medical service on a voluntary basis to those of low income. These developments were fully discussed at the recent Annual Meeting of the State Association at Cincinnati. It is recommended that all members familiarize themselves with this activity by reading thoroughly the Proceedings of the House of Delegates at the Cincinnati meeting, published in the June issue of *The Ohio State Medical Journal*.

Before any plan for spreading the costs of medical care among the low-wage group can be started by any county medical society in Ohio, it will be necessary to get the State Legislature to enact enabling legislation which will give such plans a sound legal base on which to operate. If any member does not understand what is meant by an enabling act, its purposes, or why one is necessary, he should communicate with some member of the Committee on Medical Service Plans, some member of The Council, or the State Headquarters Office.

LOCAL RESPONSIBILITY

Officers and committees of your State Association have taken the initiative in trying to make the best medical care available to all citizens of Ohio but it will take the combined efforts of all county medical societies and the entire membership to make our plans successful. Your State Association officers cannot, and should not, undertake activities which are local in scope. The need for such programs as those described above must be determined locally. Plans which will best meet local conditions must be developed locally. Administration of these programs is a local responsibility. Help and advice will be furnished by the State Association but the direct attack must be launched by the local units—the county medical societies. A particular medical program may not be needed or desired in one county. However, the members of the county medical society in that county should lend a hand in state-wide activities which are necessary to enable a county society in some other county to organize a program which is badly needed and wanted by the medical profession of that county. Unless we have unity of action on these matters our attack as a group will fail. No effort will be made to force upon the medical profession of any county any type of medical care program for either the indigent, medically indigent or the low-income groups. The decision will rest with the local medical profession. The same will be true with respect to administrative details, coverage, income groups, etc. The chief functions of the State Association are to handle necessary state-

wide details, such as drafting and sponsoring of enabling legislation for group medical service plans, and to work out general principles and procedures for the guidance of the county medical societies.

UNITED ACTION ESSENTIAL

Officers of your State Association need the support of all members and they will gladly make available to all local units advice and information. Let us unite on this activity. Certainly now is not the time for dissension and bickering within our own ranks. Let us silence our critics and meet the challenge of government-controlled or compulsory health insurance by getting behind programs which promise to be of great benefit to many of our citizens. Let us keep the practice of medicine under the control of the medical profession where it belongs and which will insure continued steady progress in the fight to improve the health of our people.

Dr. Kennon Dunham Honored

A testimonial dinner to Dr. H. Kennon Dunham, Cincinnati, in recognition of his 30 years' active service in the fight on tuberculosis was given at the Hotel Alms, Cincinnati, June 12, by four organizations with which he has been identified. The groups are: Christmas Seal Committee of Cincinnati and Hamilton County, of which he is president; Cincinnati Anti-Tuberculosis League; the faculty of the University of Cincinnati College of Medicine; and staff members of the Hamilton County Tuberculosis Sanatorium. Dr. Dunham was notified formally at the dinner that a bronze plaque comprising his picture and a tribute to his efforts had been placed in the main lobby of the Hamilton County Tuberculosis Sanatorium, from which he recently retired as medical director. The committee in charge of the dinner included Dr. Charles A. Neal, chairman; Dr. John H. Skavlem, and Dr. M. A. Blankenhorn.

River Control Pact Authorized

A bill has been enacted by the Congress authorizing the Ohio River Valley water sanitation compact between the states of Ohio, Indiana, Illinois, Kentucky, New York, Pennsylvania, Tennessee, and West Virginia. It provides for the creation of the "Ohio River Valley Water Sanitation Commission," to consist of three commissioners from each state, and three to be appointed by the President to represent the United States Government. Already ratified by New York, Illinois, Kentucky, and Indiana, the pact has conditional ratification of Ohio and West Virginia. It is yet to be acted upon by Pennsylvania and Tennessee. The compact calls for cooperation between the states in the control and abatement of stream pollution in streams, rivers and waters in the Ohio basin.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Nominating conventions of the Democratic and Republican parties have come and gone. As usual, party platforms were adopted. Obviously, the

Party Platforms Make Vague, If Any, Reference to Health

medical profession scanned them with interest to learn what might be the attitude of both parties with respect

to health questions.

In the platform adopted by the Republican convention, there was no direct reference to public health, despite the fact that a rather lengthy section of the report of the Frank platform committee, released several months prior to the time of the convention, had been devoted to this subject.

The Democratic platform contained the following statement on health:

"Good health for all the people is a prime requisite of national preparedness in its broadest sense. We have advanced public health, industrial hygiene, and maternal and child care. We are coordinating the health functions of the Federal Government. We pledge to expand these efforts, and to provide more hospitals and health centers and better health protection wherever the need exists, in rural and urban areas, all through the co-operative efforts of the federal, state and local governments, the medical, dental, nursing, and other scientific professions, and the voluntary agencies."

All of this leaves the curious person scratching his head. The wit who termed something "as vague as the plank of a party platform" was not a half-wit, in our opinion. Moreover, it might be said that all of the open-field runners are not found on the varsity football teams.

Be that as it may, perhaps the relatively minor place assigned to health in the one platform and the absence of reference in the other are good omens, indicating that experiments in the field of health are deemed unnecessary and that the health conditions of the country are pretty fair at that—Senator Wagner, et al, to the contrary notwithstanding. On the other hand, it may mean that the gates are wide open to anything which the politician may consider expedient.

There being some doubt as to just what was meant, the medical profession will be wise if it keeps itself prepared for action and on guard.

Canada always has been a vacation paradise for many Ohio physicians and their families. Here is just a little warning for those who are planning to visit Canada this Summer:

Present Emergency Has Made Proof of Citizenship Important

Because of the war, certain border regulations have been imposed by Canada on

tourists. One of these is that the Canadian visitor must have proof that he is a citizen of the United States.

A tourist who is a citizen by birth should have with him a copy of his birth certificate; if a naturalized citizen, a copy of his naturalization papers.

To obtain a copy of his birth certificate, a person should first contact the Probate Court of the county of birth. If his birth certificate is not on file there, it may be on file with the county or city health department. If these agencies do not have the certificate, inquiry should be made of the Division of Vital Statistics, State Department of Health, Columbus, providing the person was born after December 20, 1908. Records of that division go back only as far as 1908 when Ohio's law creating that division and providing for a centralized system of filing birth records was enacted. Usual charge for a copy of a birth registration certificate is 50 cents.

If one planning to visit Canada is unable to find any official record of his birth and thus is unable to obtain a certified copy, a sworn affidavit as to date of birth should be obtained from a parent, if living, a close relative, or some other individual qualified to testify to the facts.

Occasionally, a physician feels that some of the red tape which he has to put up with in assisting official agencies to keep accurate records is unnecessary. Physicians planning to visit Canada probably will realize that records are important after all. Incidentally, older physicians should preserve office records prior to 1908 if they still have them. In doing so they may be able to assist persons whom they attended at birth in obtaining proof of date and place of birth.

Officials who have been struggling with the problem of providing proof of citizenship for various individuals suggest the following list of sources of adequate information in case a copy of birth certificate cannot be secured:

Signature of physician or midwife, or others, where a physician or midwife was not in at-

tendance; office record of physician or midwife; affidavit of parent or guardian, or of older brothers or sisters, or of next of kin, with supporting evidence of adult citizens, not relatives, who have knowledge of facts; family Bible (original record); official church records of baptism, christening, confirmation or membership; hospital, nursing home or clinic records of birth; old insurance policy (more than five years prior); school enrollment records; infant's bank account; printed notices of birth; dated letters or telegrams; baby books or birth announcements; records from a federal, state or local census; application for marriage license; lodge records; employment record; military record; geneological records; civil service records.

The problem which has arisen, not only because those who wish to travel outside the United States are seeking copies of birth certificates or records but also because many industries and governmental agencies are requesting their employees to submit proof of American citizenship, calls for study of Ohio's system of birth registration to see if it is adequate. Probably the system could be improved by an amendment to the law which would require the recording of all births in each county with some permanent governmental department, such as the probate court, recorder's office, or office of the clerk of courts, where a copy of the record would be easily available to residents of the county. This would eliminate the necessity of contacting the State Health Department which has to keep a record of births in the entire state.

The preservation of sanity is one of the really great objectives before the American people.—Thurman B. Rice, M.D., Indiana State Bureau of Health.

The death of Albert H. Freiberg, M.D., Cincinnati, marks the passing of one of Ohio's distinguished physicians, a surgeon of international reputation, a civic leader, a scholarly gentleman, and one who labored efficiently for many years to make the combined influence and strength of the medical profession a potent factor in public affairs.

For many years Dr. Freiberg held the title of dean of the medical profession of Cincinnati. His leadership was an important factor in making the Cincinnati Academy of Medicine an alert and powerful agency in that city. As a member of The Council, and later as President, of the Ohio State Medical Association, Dr. Freiberg amassed a record of service which did much to make the Association a real force for the promotion of the

science and art of medicine and the protection of public health in Ohio.

The place which Albert Freiberg occupied in medicine and in the hearts of those who loved him as their medical adviser and respected him as a professional associate cannot be filled. There is consolation, however, in the fact that his deeds and philosophy of life will always remain as examples for those who are eager to carve out a distinguished medical career for themselves and win the esteem of both colleague and layman through unselfish efforts to improve the environment of society as a whole.

Physicians who are failing to cooperate in the medical preparedness poll being conducted by the American Medical Association by refusing to fill out and return the A.M.A. questionnaire, will be the vanguard of those yelling for help if and when a national emergency develops and preferred treatment is accorded those indexed by the A.M.A.

It has been argued by some that the opinion of the Court of Appeals of the District of Columbia in the action taken by the Department of Justice against the American Medical Association and certain other medical societies, holding that a profession is not exempt from the provisions of the Sherman Anti-Trust Act, is a step toward destruction of codes of ethics and regulations governing professional practice.

We never have been able to agree with this contention. In our opinion the crux of the matter is whether or not such codes and regulations are enforced so as to be beneficial to the public or in a way that they are detrimental to public interest.

This view is supported by an article, "Restraint of Trade," written by Walter P. Armstrong, Memphis, published in the July, 1940, issue of *The Journal of the American Bar Association*. Mr. Armstrong, after reviewing the A.M.A. case, quotes the following paragraph from the Court of Appeals opinion:

"If there is any justification for the restraint, so as to make it reasonable as a regulation of professional practice, it must be shown in evidence as a defense. . . Organizations and rules which have as their purpose the improvement of conditions in any particular trade or occupation, and the regulation of relations between traders, are, as we have just pointed out, beneficial rather than detrimental to the public interest."

Mr. Armstrong then adds this concluding statement:

Attorney's Comments Reveal Real Point In the A.M.A. Suit

"As the law now stands it is simply this: In the District of Columbia, where the Sherman Act has its widest scope, a profession is not per se exempt from its provisions. These provisions may be violated by an improper use of the regulation of the profession. This does not mean that a profession may not adopt and enforce proper standards of ethics. The adoption and enforcement of such standards, so the Court of Appeals declares, not only benefit the profession but work for the public good."

Status of the case at present is this: The defendants are awaiting trial. The U. S. Supreme Court on June 3 refused to review the decision of the Court of Appeals at this time which in effect returned the case to the lower court for trial on the charges preferred and the issues involved.

This month's quiz contest: Can you name the candidates for the Ohio General Assembly from your county and list their qualifications for that important office? If you can't qualify for this contest now, you still have until November 5 to do so.

Did you ever hear some acquaintance say: "I asked my doctor to give me a physical examination but he just looked at me and said I didn't need one"? It can happen — and does. For that reason it would seem timely to "lift" the following editorial published in *The Journal of the Michigan State Medical Society* under the caption, "Preparedness":

You May Think It Doesn't Happen But It Does

"If you do not equip yourself to do periodic health examinations you may find yourself as unprepared as the democracies are to the new blitzkrieg type of warfare.

"Perhaps you feel that over night you can prepare yourself to evaluate satisfactorily the health of a supposedly healthy person. It won't take you quite as long as it will take the United States to build airplanes and tanks but you can't do it over night.

"Survey yourself and your office equipment to determine your capability to make a complete physical examination and then begin testing your ability. The ordinary life insurance examination has been accepted by many people, both lay and medical, as a complete examination, but thoughtful consideration reveals the falsity of that premise.

"For a number of years the American Medical Association has attempted to stimulate interest in complete physical examinations. It publishes blanks which are rather capable guides. It also publishes a manual on 'Periodic Examinations'

(obtainable from the American Medical Association, 535 North Dearborn Street, Chicago, Illinois, for twenty-five cents) which is extremely valuable.

"Don't wait for the public to demand these examinations. Keep ahead of the crowd and offer it to your patients."

It won't be long until the physical examination programs for the benefit of youngsters beginning or returning to school in the Fall will be in full swing. The really alert county medical society is the one which has its hands on the rudder of such programs.

Application of all the rules has shown that it is not good medical practice for a physician to diagnose an ailment and prescribe treatment before personally examining the individual. Moreover, there are certain legal ramifications of such practices which no doubt are overlooked by the physician who may thoughtlessly or deliberately attempt to render service without conducting an examination. Every time a physician does so he exposes himself to a liability which might prove extremely costly.

This point is aptly illustrated in a communication published in the July, 1940, issue of *The Pennsylvania Medical Journal*, being an opinion handed down by the State Department of Justice. The opinion was requested by the secretary of health to clarify this question: Would the member of the staff of the Institute for the Control of Syphilis of the University of Pennsylvania be liable for malpractice for giving advice by correspondence regarding the care of, or prescribing treatment for, a patient he has never seen or examined if the advice actually results in unfavorable or injurious consequences to the person regarding whom it is given?

After citing numerous court decisions relating to the question and referring to sections of the Principles of Medical Ethics and reports of the Judicial Council of the American Medical Association, the opinion sets forth the following conclusions:

"We have concluded that no physician, and particularly no expert, is entitled, under the law, to rely on the diagnosis of such a serious disease as made by another physician; that he cannot, with impunity, make a diagnosis or suggest indicated therapy for a patient he has never physically examined. The technic of diagnosis is too difficult, the ramifications of the disease too complex. From a study of the foregoing authorities, as well as from considerations of sound public policy and the rationale of malpractice liability, we believe that a consultant who does not personally confer with and examine a patient accepts at his peril statements and reports made

to him by the attending physician. To hold otherwise would be to relieve the consultant of his burden to exercise the due care and diligence required of him by law; under such circumstances 'due care' certainly contemplates and requires a diligent oral and physical examination of the patient. This is particularly true when the consultant, an expert in a particular field, relies on the observations and findings of one who is not a specialist.

"We are of the opinion, therefore, and you are accordingly advised that the members of the Institute for the Control of Syphilis of the University of Pennsylvania would be liable for damages in an action of trespass for malpractice for making a diagnosis for, or prescribing treatment for, a patient they have never seen or examined, if such diagnosis or advice actually results in injurious consequences to the person regarding whom it was made or given."

Believe it or not, reports from the Workmen's Compensation investigating service of the State Association indicate that some physicians give a more complete and coherent report on a claim in a letter asking for an investigation of why a fee bill hasn't been paid than they do in official communications filed with the Industrial Commission.

Preliminary analyses of information collected in Ohio during the recent 1940 Federal census reveals a population trend away from metropolitan

Population Trends of Interest To the Younger Physicians

small suburbs and cities not too far distant from the larger industrial and trading centers.

This fact should give the physician preparing to begin the private practice of medicine something to think about. Instead of opening offices in some large city, he should consider the possibilities of starting a practice in outlying communities.

These factors, cited by census officials, are responsible for failure of the large cities to keep pace with smaller communities in the population increase: Lure of the home in the country with a little plot of ground; cheaper and more desirable housing in outlying areas; improved thoroughfares and traffic facilities; extension of utility systems (power, water and gas); decrease in metropolitan birth rates; movement of factories; elimination of slums. Obviously, these factors should be taken into consideration by the young physician when he starts out to find a suitable location.

It is impossible to divorce social and economic trends and the practice of medicine. The physician starting practice should not disregard social and economic factors. The physician already practicing will not disregard them if he fully appreciates their significance.

Gone with the wind is the day when the responsibility for filling the post of public health officer can be met with a shrug of the shoulders and the rejoinder

Today's Public Health Officer Must Be "most anyone can take care of that job".

Adequately Trained The job of running a health department today is not a routine procedure. Advances in the field of public health demand that the administrative officer have some special training for the position so that he can handle efficiently the new requirements and responsibilities which progress has created. Recent trends indicate that the public is aware of this and will support adjustments toward greater efficiency in public health administration.

On the other hand, there is one factor which must not be overlooked, namely: The necessity for medical as well as scientific training for public health officers. Without a medical degree, today's health officer cannot keep up with the parade. The health department headed by an administrative officer lacking medical training must eventually take second rank. Medical science always will be a fundamental element in public health and public health administration always will be a component part of medicine.

These facts are recognized in the recently published recommendations concerning the educational qualifications of health officers of the American Public Health Association. In general these involve the completion of a course leading to the degree of Doctor of Medicine in a recognized medical school, one year's internship in an approved hospital including a service in communicable diseases, a preliminary period of supervised field experience in a well organized department of health and a period sufficient to give acquaintance with public health activities in general and especially an opportunity for the candidate to determine his own liking and fitness for a career in public health. Finally there should be at least one full academic year devoted to the study of public health in a suitable university.

The committee states: "Because of the unmistakable trend upon the part of governmental bodies to insist upon the medical degree as a prerequisite to appointment as health officer, and because it is impossible to foresee whether the prospective health officer will be located in a health department where his duties are restricted to administrative functions, it is inadvisable to encourage the candidate for a public health degree to look forward to a career as health officer unless he is also the possessor of a medical degree, and for these reasons our recommendations contain no reference to the non-medical health officer".

Public health programs have become such important parts of community life that only the well-qualified deserve consideration for the office

of departmental administrator. In making the selection those charged with that responsibility should keep in mind that the extremist seldom fills the bill and that the job requires one with well-rounded training, plus a sense of judgment and diplomacy, who won't forget that in the final analysis the cooperation of practicing physicians is a vital essential in any public health program.

Provision and maintenance of facilities for improvement of public health are local functions, and should be kept so. Experience has shown that grants-in-aid encourage extravagance and do not promote efficiency and public service.—Summary of resolution adopted by the U. S. Chamber of Commerce at 28th Annual Meeting.

Confusion and misunderstanding regarding a decision of the Court of Appeals of Hamilton County bearing on the responsibilities of an operating surgeon were clarified on June 5 when the Ohio Supreme Court heard arguments on a motion to have that court review the decision of the appellate court. (Abercrombie vs. Roof, No. 28166, Ohio Bar, 6-24-40.)

In refusing to review the case, the Supreme Court upheld the opinion of the Court of Appeals of Hamilton County, remanding the case to the lower court for re-trial on several assignments of error.

Of particular interest and importance to the medical profession generally are the following paragraphs in the published opinion of the Court of Appeals (Ohio Law Reporter, 5-20-40) which definitely set forth the responsibility of the operating surgeon and the responsibility of the hospital:

"An operating surgeon is only responsible for failure to use the care which a reasonably prudent person would use under the same or similar circumstances and such duty is limited to those matters over which he has direct control and does not include matters within the jurisdiction of the hospital in which he operates.

"Such operating surgeon is not responsible for the misuse of drugs prepared by the hospital unless the ordinarily prudent use of his faculties would prevent injury to a patient upon whom he operates."

By upholding the decision of the appellate court, the Ohio Supreme Court in effect placed its approval on the above statements which clearly show that the operating surgeon cannot be held responsible for a mistake made by those over whom he does not have direct control unless it can be proved that "the ordinarily prudent

use of his faculties" would have discovered the mistake.

The confusion which surrounded this case and which precipitated publicity that alarmed the profession, arose because the above paragraphs did not appear in the appellate court decision when it was originally announced, leading some attorneys to believe that the court had said a physician is responsible for the purity and correctness of anesthetics and drugs furnished by a hospital and used in connection with an operation. This point was clarified by the Court of Appeals in its published opinion when the two paragraphs quoted above were inserted.

Ethics is something a doctor falls back on when he wants to be reticent, says an Ohio newspaper columnist, proving that one way to ruin a good reporter who, to be good, must be sure of his facts, is to make him a columnist.

A problem which must be met one of these days by groups mutually interested in protecting the health and welfare of the public is that involving counter sales of habit-forming preparations which are not covered by statutes requiring a physician's prescription.

Safeguards In Sale of Certain Drugs Are Suggested

A recent communication issued by the Cincinnati Academy of Pharmacy refers to this question. It calls attention to the fact "that under one of the sections of the new Federal Food, Drug and Cosmetic Act it is unlawful to dispense any barbiturate, barbital, phenobarbital, nembutal, etc., either over the counter or on prescription without affixing a sticker marked 'Warning—May be habit forming' unless the prescription is originally marked 'Non Repletatur'".

Commenting on this communication, the *Monthly News Letter* of the Cincinnati Academy of Medicine observes that such a sticker might create a feeling of alarm in the patient's mind and for this reason prescriptions for such drugs should be marked "Non Repletatur".

"This procedure," it is stated, "makes the warning sticker unnecessary and gives the druggist a change to send the patient back to his doctor for further medication. It also will discourage the promiscuous refilling of prescriptions of this type."

It is quite likely that state legislation will be necessary to control this situation. When the proper time comes for a step in this direction, a properly drawn proposal should receive the support of the medical and pharmacy professions as well as other organizations interested in dealing with this and similar problems.

Rules Governing Hernia Claims Filed Under the Workmen's Compensation Act Are Revised, Effective July 12

REGULATIONS governing hernia claims filed with the State Industrial Commission were revised by the Commission on July 12, effective immediately, to bring the rules into line with legal decisions and medical experience which have accumulated since May 4, 1928, when the original regulations were promulgated by the Commission.

The regulations as amended are as follows:

"All hernia claims shall be considered on their merits, special stress being laid on the following general principles:

"The Commission considers hernia as a disease or physical weakness which ordinarily develops gradually and is rarely the result of an accident. A pulsation in the internal ring without definite protrusion is not considered a hernia. A large hernia extending to the external ring or farther discovered within a short time following the injury without severe pain and prostration is considered unrelated to the injury. A hernia appearing two years or more after the operation at the site of the operation should not be considered as the result of the original injury or operation.

"(a) The claimant must establish by competent proof:

"(1) That the injury resulting in hernia was sustained in the course of and arising out of his employment.

"(2) That the hernia appeared immediately or within a short period following the injury.

"(3) That the hernia did not exist prior to the injury.

"(b) If and after the claim has been allowed:

"(1) Medical and hospital expenses shall be paid for the radical cure of a hernia in accordance with the scheduled fees. Compensation will be allowed for the disability resulting from the operation.

"(2) If the hernia recurs before the claimant returns to work following the operation and it is found that there has been no unusual stress or strain applied to the operative site, the operating surgeon will be expected to repair this hernia without charge. The hospital bill for the additional period will be paid if the hospital has not been responsible for this recurrence.

"(3) If operation is refused by the claimant, compensation shall be paid for a period

not to exceed two weeks from the date the claimant stopped working.

"(4) If the operation is contraindicated on account of advanced age, heart disease, or any other physical condition, compensation shall be paid according to the medical proof as in other claims.

"(5) Compensation shall not be paid for more than two weeks prior to operation unless it is conclusively shown by medical proof that the hernia could not be retained by a truss.

"(6) Compensation and medical expenses shall be paid in case of strangulation of a new or pre-existing hernia when it is proven that the strangulation was due to injury received in the course of and arising out of employment.

"(7) A reasonable allowance will be made for a truss when ordered by the attending physician, providing the hernia claim is allowed. This will be paid according to the Fee Schedule on mechanical appliances and applies only to the first truss supplied following the injury. If subsequent trusses are needed authorization must be obtained from the Industrial Commission before they are purchased."

Grants for Research Announced

Three gifts to the School of Medicine for research purposes were recently announced by President Winfred G. Leutner of Western Reserve University.

The Commonwealth Fund of New York has made appropriations totaling \$17,900 for the use of Dr. Carl J. Wiggers, professor of physiology, for a three-year program of studies of extra-cardiac factors of circulation, particularly in the failure of the circulation in surgical shock and similar conditions.

The John and Mary R. Markle Foundation of New York has appropriated \$4,100 for the continuation of studies of the "Cause and Treatment of Ventricular Fibrillation", in angina pectoris, coronary occlusion and in accidental electrocution. These studies have been in progress for a year in the School of Medicine under the direction of Dr. Wiggers.

Another grant from the Markle Foundation, in the amount of \$2,000, will be used to support an investigation of intravenous bismuth injections by Drs. Torald Sollmann and Joseph Seifter of the department of pharmacology.

In Memoriam

Albert Henry Freiberg, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1890; aged 72; member of the Ohio State Medical Association, American Board of Orthopaedic Surgery, Inc., American Orthopaedic Association, Clinical Orthopaedic Society, American Academy of Orthopaedic Surgeons, and Fellow of the American Medical Association and the American College of Surgeons; died July 14.



Dr. Freiberg, professor emeritus of orthopedic surgery at the University of Cincinnati College of Medicine, began the practice of medicine in Cincinnati in 1893, after studying abroad at the Universities of Wurzburg, Strassburg, Berlin and Vienna. For many years he was director of the orthopedic services at General and Children's Hospitals, continuing as consultant on these services after his retirement two years ago.

Active and distinguished professionally, Dr. Freiberg was an indefatigable worker for organized medicine. From 1916 to 1921, he was a member of the Committee on Public Policy of the Ohio State Medical Association, and was Councilor for the First District in 1926-1928. On May 2, 1928, Dr. Freiberg was named President-Elect of the State Association, serving as President the following year. He was president of the American Orthopaedic Association in 1910-1911 and president of the Cincinnati Academy of Medicine in 1923-24. In 1917-18, Dr. Freiberg was chairman of the Section on Orthopedic Surgery of the American Medical Association.

Interested in the rehabilitation of crippled children, he was one of the most active supporters for improvements in Ohio's program for crippled children. He had served as chairman of the Executive Council of the Georgia Warm Springs Foundation and chairman of the Advisory Committee on Crippled Children of the Children's Bureau of the U. S. Department of Labor. During the last World War, Dr. Freiberg was a major in the Medical Corps of the U. S. Army, being stationed at Walter Reed Hospital, Washington, D. C. Dr. Freiberg had many interests outside of his profession. He was a member of the Board of Trustees of Hebrew Union College and a director of the Cincinnati Fine Arts Institute. For 30 years he had played first violin in a string quartet which met weekly at his home. He was interested in botany, especially in the wild flowers of his locality and amateur photography was one of his hobbies. Surviving are his widow and two sons, one of whom is Dr. Joseph A. Freiberg, Cincinnati.

* * *

Onie Ann Barrett, M.D., Wakeman; University of Wooster Medical Department, and Cleveland Medical College, Cleveland, 1893; aged 68; died July 5. Dr. Barrett retired 10 years ago, after having practiced in Cleveland and Philadelphia. A sister survives.

Earl G. Grover, M.D., Ashland; University of Louisville School of Medicine, Louisville, Ky., 1921; aged 47; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 2. A native of Rowley, Iowa, Dr. Grover practiced there for several years, locating in Ashland in 1929. He was active in the affairs of the community, being a member of the Methodist Church, the Masonic Order and the American Legion. Surviving are his widow, his father, two sons, three sisters and three brothers.

John T. Henderson, M.D., South Euclid; Pulte Medical College, Cleveland, 1900; aged 75; died July 10. For a number of years Dr. Henderson

was a member of the staff of Grace Hospital. In 1925 he moved to Stuart, Fla., where he became health officer of Martin County, returning to Cleveland in 1929. Dr. Henderson was a member of the Masonic Order. His widow and a son survive.

Andrew J. Learned, M.D., Millfield; Columbus Medical College, 1877; aged 97; died June 22. Dr. Learned studied medicine following his return from the Civil War, in which he fought in Company C of the Ohio Volunteer Infantry. He retired in 1927, after 50 years' practice in Millfield. He was a member of the Athens County G.A.R. post. Surviving are four daughters and four sons.

Bernard Reamy LeRoy, M.D., Stoutsville; Western Reserve University School of Medicine, Cleveland, 1885; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died July 6. Dr. LeRoy retired several years ago, after having practiced

medicine since 1886, most of the time in Chagrin Falls. He had also practiced in Athens, Cleveland, South Carolina and North Dakota. Three sons, a sister and two brothers survive.

Charles J. Marquette, M.D., Nova; Western Reserve University School of Medicine, Cleveland, 1897; aged 69; died June 20. Dr. Marquette practiced in Ashland County for 40 years. He was a charter member of the local I.O.O.F. lodge and a member of the county board of health. His widow, a son, two sisters and one brother survive.

Oscar McLaughlin, M.D., Jackson; Columbus Medical College, 1891; aged 75; member of the Ohio State Medical Association and the American Medical Association; died June 30. Dr. McLaughlin practiced at Madison Furnace for 12 years and at Winchester and Jackson for 38 years. One of the leading citizens of the community, he was well-known throughout Jackson County. Dr. McLaughlin had been president of the local Board of Education and was a member of the Knights of Pythias. His widow and three daughters survive.

Malcolm Dean Miller, M.D., Akron; Harvard University Medical School, Boston, Mass., 1905; aged 61; died July 5. A former head of the contagious disease division of the Akron Health Department, Dr. Miller had practiced there for many years. His widow, a daughter and a brother survive.

William Frederick Roberts, M.D., Delaware; Harvard University Medical School, Boston, Mass., 1902; aged 66; died June 30. Dr. Roberts recently retired after 19 years as head of the department of physical education at Ohio Wesleyan University. From 1907 to 1921 he was physical director of the Central Y.M.C.A. at Cleveland. Dr. Roberts was a member of the Rotary Club, the Presbyterian Church, Sigma Phi Epsilon fraternity, and a former president of the local P.T.A. His widow and a son survive.

Alvan L. Waltz, M.D., Cleveland; Cleveland University of Medicine and Surgery, 1883; aged 82; died March 22. Dr. Waltz was one of the oldest practicing physicians in Cleveland, having been located there for 57 years. He was a former professor of materia medica at the old Cleveland Homeopathic Medical College, a former staff member of Huron Road Hospital, and at one time was health commissioner of Collinwood. For many years Dr. Waltz was superintendent of the Sunday School and an elder of the Collinwood Christian Church. He was a member of the Knights of Pythias. Surviving are his widow, two daughters, and three sons, one of whom is Dr. Claude D. Waltz, Cleveland.

John G. Wishard, M.D., Wooster; Medical College of Indiana, Indianapolis, 1888; aged 77; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 15. A past-president of the Wayne County Medical Society, Dr. Wishard had practiced in Wooster since 1910. Dr. Wishard practiced in Minnesota for a year following graduation. After three years' practice in Indianapolis, he accompanied an archaeological expedition to ancient Babylon, and the following year was appointed the first medical director of the Presbyterian Hospital, at Teheran, Persia. Dr. Wishard was a member of the National Board of Health of Persia, and was personal physician to two Shahs during his 20 years in that country. He has written several books, including "Reminiscences of a Doctor", and "Twenty Years in Persia". At the time of his death, Dr. Wishard was entering on his 30th year as a member of the Board of Trustees of Wooster College. He was a former president of the Ohio State Student Health Association and had much to do with the building of Hygeia Hall, the Wooster College hospital. During the World War, he was medical adviser to the S.A.T.C. at the College and examiner for the Wayne County draft board. Dr. Wishard was a charter member and former president of the local Lions Club. He was an elder of the Presbyterian Church for 30 years. Surviving are his widow, a daughter, a son—Dr. Fred B. Wishard, Anderson, Indiana, a brother and a sister.

Coming Meetings

American Academy of Ophthalmology and Otolaryngology, Cleveland, Oct. 6-11.

American College of Physicians, Boston, April 21-25, 1941.

American College of Surgeons, Chicago, Oct. 21-25.

American Congress of Physical Therapy, Cleveland, Sept. 2-6.

American Public Health Association, Detroit, Oct. 8-11.

American Roentgen Ray Society, Boston, Sept. 26-Oct. 4.

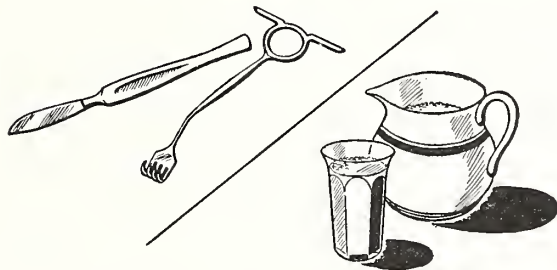
Association of Military Surgeons of the United States, Cleveland, Oct. 10-12.

Interstate Postgraduate Medical Assembly, Cleveland, Oct. 14-18.

Southern Medical Association, Louisville, Nov. 12-15.

Southern Surgical Association, Hot Springs, Va., Dec. 10-12.

Grapefruit and Surgical Disease



CITRUS JUICES are of value in the pre-operative preparation of the surgical patient, as well as during his subsequent convalescence.

The administration of large quantities of citrus juice during the 24 to 48 hours preceding operation has been found to result in less post-operative nausea and depression.

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The repair of wounds, accidental or surgical, depends upon the ability of the body to produce and maintain fibrous tissue, and this in turn is dependent upon an adequate supply of Vitamin C.

Citrus fruits are prime sources of Vitamin C, and contain appreciable amounts of other necessary vitamins and minerals.

Grapefruit juice is particularly useful; its attractive, tart flavor facilitates the administration of large

quantities of the juice before operation, and stimulates the appetite during convalescence. *Canned* grapefruit juice is high in all the values attributed to the fresh fruit. Furthermore, it is economical, convenient to use and readily available the year around.

The Citrus Commission of the State of Florida has prepared a treatise on the citrus fruits in their relation to health, with a full bibliography; a copy will be sent to any member of the medical profession upon request.

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STATE OF FLORIDA



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The statements in this advertisement are based on the following numbered references in "Citrus Fruits and Health": 44, 93, 95, 96, 100.

Do You Know - - -

Dr. George W. Crile has been elected an honorary member of the Cleveland Academy of Medicine. Other honorary members of the Academy include: Dr. L. P. H. Bahrenburg, Dr. Geo. Edw. Follansbee, Dr. W. H. Humiston, Dr. W. E. Lower and Dr. J. E. Tuckerman.

* * *

Dr. Sidney McCurdy, supervisor of the Medical Section, State Industrial Commission, is vacationing at his summer home in East St. Johnsbury, Vermont.

* * *

The Medicine and Public Health Exhibit at the New York World's Fair will be given a permanent home when the Fair closes, it was recently announced by Dr. Louis I. Dublin, vice-president of the Metropolitan Life Insurance Company and chairman of the Exhibit's board of directors.

* * *

Edward Spease, Cleveland, Dean of Western Reserve University School of Pharmacy, has resigned to become associated with the National Association of Retail Druggists, Chicago. His work will be to develop a professional program for the association and some form of inter-professional relationships nationally.

* * *

The lucky number in the drawing contest for a 1940 Oldsmobile four-door sedan, for which all Fellows who registered at the New York A.M.A. session were eligible, was held by Dr. William P. Boardman, professor of dermatology, Tufts College Medical School, Boston, Mass.

* * *

Dr. R. E. Bushong, superintendent of the Cleveland State Hospital for the Insane and formerly head of the Lima State Hospital, has been appointed state commissioner of mental diseases, succeeding Dr. J. Fremont Bateman who resigned to return to his former post as superintendent of the Columbus State Hospital.

* * *

Miss Helen G. Keelor, former executive secretary of the Cincinnati Academy of Medicine, with which she was associated 18 years, died June 24, following severe injuries received in an explosion in her home.

* * *

New officers of the Buckeye State Medical, Dental and Pharmaceutical Association, a Negro professional organization, include: Dr. A. F. McCoy, Columbus, president-elect; Dr. B. F. Cann, Cincinnati, secretary; Dr. S. S. Jordan, Springfield, treasurer, and Dr. R. E. Clarke, Cincinnati, chairman of the executive committee.

At the annual meeting of the Ohio Eclectic Medical Association held at Russels Point, June 9, Dr. F. L. Thomas, Marion, became president, and the following new officers were elected: Dr. Dwight J. King, Findlay, president-elect; Dr. W. H. Carey, Bellefontaine, secretary, and Dr. George DeMuth, Sherwood, treasurer.

* * *

The American Association of the History of Medicine plans to hold a fall meeting in Cleveland, October 7, under the auspices of the Ohio Committee for Medical History and Archives, with Dr. Howard Dittrick, Cleveland, as chairman.

* * *

Dr. Louis J. Karnosh, well-known Cleveland psychiatrist, is convalescing from a serious injury sustained July 2 when he was shot in the neck by a patient who was disgruntled because of a report which Dr. Karnosh had given in his case, involving workmen's compensation.

* * *

Dr. C. I. Kuntz, Fremont, has been re-elected commander for the Fifth District of the state American Legion. He was also selected as a delegate to the national convention to be held in Boston in September.

* * *

An increase of 10.4 per cent in sales tax income for the first six months of 1940 was reported by State Treasurer Don H. Ebright, the amount being \$24,472,873.70 compared with \$22,176,162 for the same period last year. A total of \$414,807.55 has been paid to applicants who asked for redemption of sales tax receipts saved in behalf of civic, charitable and fraternal organizations.

* * *

Dr. Torald H. Sollman, Dean of Western Reserve University School of Medicine, Cleveland, has been re-elected chairman of the Council of Pharmacy and Chemistry of the American Medical Association. Dr. Harold N. Cole, Cleveland, is also a member of the Council.

* * *

At the annual meeting of the University of Toledo Alumni Association golden "T" awards, to alumni who perform meritorious work, were presented to Dr. John T. Murphy, '06, and Dr. Fred M. Douglass, '11.

* * *

Dr. Bruno Gebhard, until 1937 director of the health museum at Dresden, Germany, and formerly technical director of the health exhibit at the New York World's Fair, has been appointed director of the Cleveland Health Museum.

HUMAN CALCIUM REQUIREMENTS

● The formation of bone or calcareous tissue is probably the best known use of dietary calcium by the animal body. However, calcium—as the ion or in the form of its compounds—is also concerned with certain other vital physiologic activities, among them normal cardiac function and the normal clotting of blood. The importance of an optimal dietary supply of calcium, therefore, should be immediately apparent. Nevertheless, it appears that many American diets may be deficient in this essential mineral.

Investigations have established within limits the daily needs of humans for calcium (1, 2, 3, 4, 5). By means of balance studies—in which the extent of calcium intake and excretion is closely followed—it has been possible for investigators to arrive at estimates of the daily amounts of this mineral required in various phases of the life cycle. In addition, it has been possible to study the effect of specific factors which may influence calcium utilization, such as vitamin D, phosphates, or certain anions in foods.

As to human daily calcium requirements, some differences apparently exist between the estimates of various authors. However, an allowance of 1.0 gram of calcium per day for children appears well supported by the evidence. For adults, conservative opinion is well expressed in the following quotation (5):

"From the evidence . . . it follows that with the requirement—in the sense of estimate of minimal need with allowance for variations—now put at about 0.75

gram per day for adult maintenance, the women of the population should have an average of about 1 gram per day to provide for the occasional exercise of the functions of pregnancy and lactation without undue tax upon the mother; and that the men of the population should also have an average of about 1 gram of calcium per day, if they are to be nutritionally at their best."

Protective diet formulation has recently been admirably described (5). The basic pattern of modern diet planning provides that milk—whole or the various forms of canned milk—be included in the ration in such amounts that practically the entire calcium requirement for the individual is supplied from that source alone. Other foods which supply significant amounts of calcium (5) and which normally should be included in the varied diet, serve as supplementary sources of this essential mineral. By this means, the calcium requirement of the individual should be adequately met.

Attention might well be directed to the part which commercially canned foods might play in diet formulation to assure ample calcium intake. Milk in various forms, as well as other foods commonly regarded as valuable sources of calcium, are included among the several hundred available canned foods. The use of these foods according to the modern diet plan should assist materially in providing for an optimal supply of this essential mineral.

AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

REFERENCES

1. 1939. Mineral Metabolism, Alfred T. Shohl, Reinhold, New York.
2. 1939. The Newer Knowledge of Nutrition, Fifth Edition, E. V. McCollum, Elsa Orent-Keiles and Harry G. Day, Macmillan, New York.
3. 1937. Nutrition Abstracts and Reviews 6, 553.
4. 1937. Chemistry of Food and Nutrition, Fifth Edition, H. C. Sherman, Macmillan, New York.
5. 1939. Food and Life, Yearbook of Agriculture, U. S. Dept. Agri., U. S. Government Printing Office, Washington, D. C.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-second in a series, which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

A picnic was enjoyed by 35 members of the Butler County Medical Society at the Gun Club, Milliken Road, Hamilton, Wednesday afternoon and evening, June 26.—Vera Coombs Iber, M.D., secretary.

CLINTON

Dr. R. W. DeCrow, county health commissioner, spoke on the organization of the State Department of Health, at a meeting of the Clinton County Medical Society, Tuesday noon, May 7, at the General Denver Hotel, Wilmington.—News clipping.

HIGHLAND

Dr. Robert E. Quinn spoke on "The Eye," at a meeting of the Highland County Medical Society, Wednesday, July 3, at the Highland House, Hillsboro.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

"Diagnosis and Regulation of Pernicious Anemia", was the subject discussed by Dr. S. F. Crynes at a luncheon meeting of the Clark County Medical Society, Friday, May 31, at the Hotel Shawnee, Springfield.—News clipping.

GREENE

The Greene County Medical Society meeting at Xenia, Thursday, July 11, accepted with great pride and pleasure the report of Dr. Ben R. McClellan on the recent meeting of the American Medical Association, and that of Dr. H. C. Messenger on the Cincinnati meeting of the Ohio State Medical Association. The society has great admiration for Dr. McClellan, dean of the House of Delegates of the A.M.A., and chairman of the Committee on Reports of Board of Trustees and Secretary at the New York meeting.—Donald F. Kyle, M.D., secretary.

MONTGOMERY

The annual election of the Montgomery County Medical Society held at Dayton, June 7, resulted in the following officers being elected for 1941: Dr. Merrill D. Prugh, president; Dr. Jerold K. Hoerner, first vice-president; Dr. Gordon L. Erbaugh, second vice-president; Mildred E. Jeffrey, secretary-treasurer; Dr. Clement D. Smith, legislative committeeman; Dr. Albert F. Kuhl, public relations committeeman; Dr. Paul

L. Yordy, Dr. Clarence J. Derby, Dr. Howard V. Dutrow and Dr. A. W. Carley, delegates; Dr. Michael R. Haley, Dr. Thos. K. Kirk, Dr. Ralph D. Dooley, Dr. E. McCall Smith, alternates.—Mildred E. Jeffrey, executive secretary.

PREBLE

Dr. Karl W. Horn, Dayton, was the speaker at a meeting of the Preble County Medical Society, Wednesday morning, May 29, at Eaton.—News clipping.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

SUMMIT

Dr. Edward Cathcart, Detroit, attending urologist at Women's Hospital and formerly assistant professor of urological surgery at the University of Michigan Medical School, spoke on "The Clinical Significance of Hematuria", at a meeting of the Summit County Medical Society, Tuesday, June 4, at the Mayflower Hotel, Akron.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

CARROLL

A business meeting and fish fry were enjoyed by members of the Carroll County Medical Society, Wednesday evening, June 24, at the home of Dr. Joseph D. Stires, Malvern.—News clipping.

TUSCARAWAS

A sound movie entitled "Cardiac Emergencies", was shown at a meeting of the Tuscarawas County Medical Society, Thursday evening, June 13, at the Hotel Reeves, New Philadelphia.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MORGAN

At a meeting of the Eighth District held at the Rocky Glen Sanatorium, McConnelsville, Thursday, June 25, the following district officers were elected for the ensuing year: Dr. A. A. Tombaugh, McConnelsville, president; and Dr. E. G. Rex, McConnelsville, secretary.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

GALLIA

Dr. F. W. Shane has been appointed to fill out the unexpired term of Dr. David L. Beers, as

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secretary of the Gallia County Medical Society. Dr. Beers is now located at Warren.

LAWRENCE

A joint meeting of the Lawrence County Medical Society and the staff of Ironton General Hospital was held at the hospital, Tuesday evening, May 21. Dr. George G. Hunter reported on the Cincinnati meeting of the Ohio State Medical Association. A report on "Medical Economics" was made by Dr. W. R. Swango.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

RICHLAND

Dr. L. D. Bonar has been elected secretary of the Richland County Medical Society, succeeding Dr. D. D. Deeds, Jr., who is taking a year of post-graduate work.

WAYNE

Dr. Walter A. Hoyt, Akron, spoke on "Treatment of Fracture at the Neck of the Femur", at a meeting of the Wayne County Medical Society, Friday evening, May 24, at the Veterans' Home, Wooster.—News clipping.

Eye and Ear Specialists Will Hold Convention in Cleveland

The American Academy of Ophthalmology and Otolaryngology will hold its forty-fifth annual convention in Cleveland, October 6 to 11, with headquarters at the Hotel Cleveland. In addition to scientific papers, an elaborate series of courses will be presented.

In the past year, the Academy has arranged home study courses for young men who wish to take them and their work will be supervised by members of the academy interested in improving the caliber of specialists in practice.

The Cleveland meeting will be noteworthy in several respects. The Academy will honor Dr. Second H. Large, Cleveland, who this year completes 30 years as comptroller of the organization.

Immediately following the Academy meeting, there will be a Pan-American Congress of Ophthalmology, October 11 and 12, which eye specialists from all the Latin American countries are expected to attend.

Dr. Frank Brawley, Chicago, is president of the Academy and Dr. Frank R. Spencer, Boulder, Colo., is president-elect. Vice presidents are Drs. Arthur W. Proetz, St. Louis; Joseph F. Duane, Peoria, Ill., and Charles T. Porter, Boston. Dr. William P. Wherry, 1500 Medical Arts Building, Omaha, is executive secretary.

Plan New Study to Evaluate Original Serologic Tests for Syphilis

More than five years ago the Committee on Evaluation of Serodiagnostic Tests for Syphilis, in cooperation with the United States Public Health Service, conducted a study to evaluate original serologic tests for syphilis or modifications thereof in the United States. The results of this study were published shortly after the investigation was completed. (*Journal of the A.M.A.*, June 8, 1935.)

Consideration is now being given by the committee to the organization of a second evaluation study of original serologic tests for syphilis or modifications thereof within the next year. If the need for an investigation of this kind seems to justify the cost, invitations will be extended to the authors of such serologic tests who reside in the United States, or who may be able to participate by the designation of a serologist who will represent them in this country. The second evaluation study will be conducted utilizing methods comparable to those employed in the first study. (*Journal of the A.M.A.*, Dec. 1, 1934.)

Serologists who have an original serologic test for syphilis or an original modification thereof and who desire to participate in the second evaluation study should submit their applications not later than October 1, 1940. The applications must be accompanied by a complete description of the technic of the author's serologic test or modification. All correspondence should be directed to the Surgeon General, United States Public Health Service, Washington, D. C.

No Change Now in Gut Standards

On the recommendation of the Committee of Revision of the Pharmacopoeia of the United States, and with the approval of the Board of Trustees, the enforcement of the standards for surgical gut, which were announced in the Second Supplement to the U.S.P. XI, are postponed until January 1, 1941.

These standards were to become official on July 1, 1940, but because of the discovery that considerable stocks of surgical gut, conforming to the new Pharmacopoeial standards with respect to their diameter, tensile strength, and sterility, but not labelled in accordance with the new official requirements, were still in the hands of dealers, the action reported above was taken by the official Pharmacopoeial Committee and Board. Since this surgical gut could be used with entire safety it was deemed unwise and unnecessary to render the stocks unsalable and therefore cause a large financial loss.

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Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in anterior urethritis: Wyeth's Silver Picrate Crystals in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genitourinary and gynecological practice will be mailed on request.

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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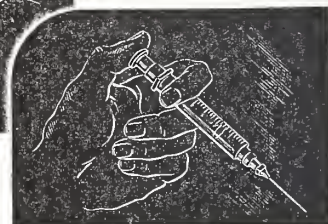
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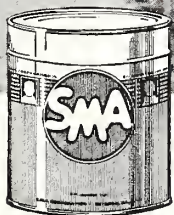
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Named Section Officers of A. M. A.

The following Ohio physicians were elected section officers at the recent meeting of the American Medical Association in New York: Dr. Thomas E. Jones, Cleveland, vice chairman, Section on Surgery, General and Abdominal; Dr. Derrick Vail, Cincinnati, secretary and member of the Committee on Scientific Exhibit, and Dr. John E. L. Keyes, member of the Committee on Scientific Exhibit, Section on Ophthalmology; Dr. John A. Toomey, Cleveland, vice chairman; Dr. A. Graeme Mitchell, Cincinnati, alternate delegate, and Dr. J. Victor Greenebaum, Cincinnati, member of the Committee on Scientific Exhibit, Section on Pediatrics; Dr. Carl J. Wiggers, chairman and member of the executive committee, Section on Pathology and Physiology; Dr. Clyde L. Cumber, Cleveland, delegate, and Dr. Harold N. Cole, Cleveland, alternate, Section on Dermatology and Syphilology; Dr. P. A. Davis, Akron, chairman, Committee on Scientific Exhibit, Section on Preventive and Industrial Medicine and Public Health; Dr. L. F. Huffman, Cleveland, vice chairman, Section on Urology; Dr. James A. Dickson, vice chairman, Section on Orthopedic Surgery; Dr. John T. Murphy, Toledo, secretary, Section on Radiology.

New Grant to Brush Foundation

Dr. William W. Greulich, director of the Brush Foundation and professor of physical anthropology and anatomy of the School of Medicine of Western Reserve University, has announced that the Rockefeller Foundation has added \$12,000 to the allotment already made to the Brush Foundation for the assessment of child health and development. The Brush Foundation has 4,000 children recorded in its files. Its program of examination is to make the assessment of children as to their physical, mental, emotional and psychological growth of value to institutions, teachers and parents all over the country.

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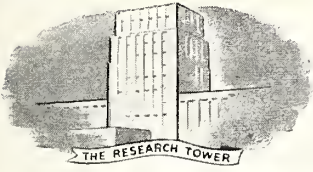
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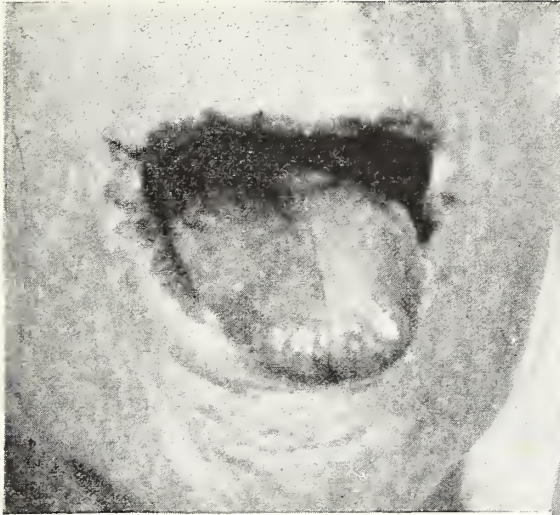
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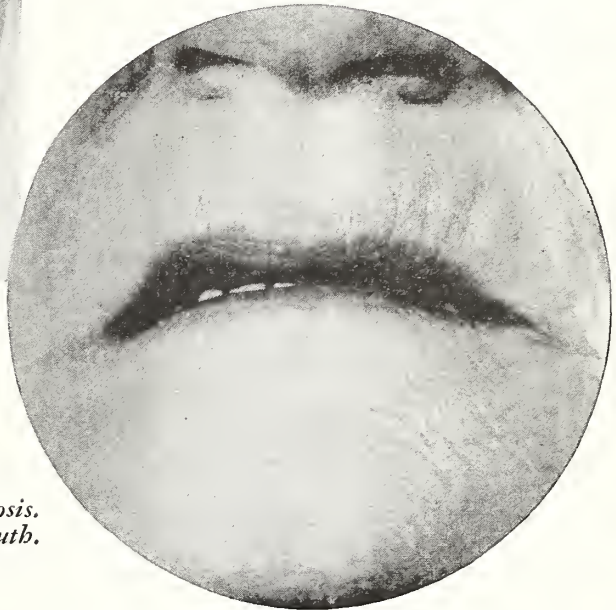


This page is the eighth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the July 20 issue of The Journal of the American Medical Association.



Coexisting riboflavin deficiency and pellagra, showing cheilitis and the characteristic glossitis.

THE manifestations of riboflavin deficiency in man have been recognized as such only recently. Frequently they occur in conjunction with pellagra, and consequently the characteristic lesions may not be apparent until the pellagra has been overcome.



The cheilitis of ariboflavinosis. Note fissures at angles of mouth.

The Clinical Manifestations of Riboflavin Deficiency

THE most prominent lesion of riboflavin deficiency is a cheilitis characterized by reddening of the lips due to exfoliation of the epithelium, and radiating fissures at the angles of the mouth. There may also be seborrheic lesions in the nasolabial fold and on the alae nasi. According to Krause, Sydenstricker, Sebrell, and

Cleckley, riboflavin deficiency produces a magenta color of the tongue. As stated by these investigators, when riboflavin and nicotinic acid deficiencies occur in the same individual, the fiery red tongue of pellagra may change under the influence of nicotinic acid to a magenta color which disappears only after riboflavin therapy.



Medical Technologists Being Enrolled by Red Cross for Army Service

At the request of the Surgeon General of the Army and in compliance with its policy of co-operation with both the Army and Navy, the American Red Cross, as an expansion of its peace-time service for the military forces, has undertaken the enrollment of various types of medical technologists who are willing to serve in the medical departments of the Army and Navy if and when their services are required at the time of a national emergency.

Persons with the following qualifications will be enrolled:

Chemical Laboratory Technicians (male).
Dental Hygienists (male and female).
Dental Mechanics (male).
Dietitians (male and female).
Laboratory Technicians (male and female).
Meat and Dairy Hygienists (Inspectors) (male).
*Nurses (male).
Occupational Therapy Aides (male and female).
Orthopedic Mechanics (male).
Pharmacists (male and female).
Physical Therapy Technicians (Aides) (male and female).
Statistical Clerks (male and female).
X-Ray Technicians (male and female).

*This group will not be members of the Army or Navy Nurse Corps which under basic law are limited to females, but will be used as technologists for service auxiliary thereto.

General qualifications for enrollment are as follows:

1. Citizens of the United States.
2. Ages 21-45 years (Army); 18-35 (Navy—men only).
3. Physically qualified. Applicants must pass a satisfactory physical examination, according to standards set respectively by the Army and Navy Medical Departments.
4. Women applicants must be unmarried.
5. All applicants must express a willingness to serve as a technologist in time of a national emergency.

Male technologists will be eligible for enlist-

ment in the Army as non-commissioned officers in the grades of sergeant, staff sergeant, or technical sergeant. Women technologists, and men who do not qualify physically, will be eligible for employment by the Army as civilians.

For the Navy, male technologists will be eligible for enlistment in the Naval Reserve as petty officers—pharmacist's mates 3d, 2nd, and 1st, class and chief pharmacist's mate (acting appointment). Women technologists are not eligible for service in the Navy under present plans.

The Medical Department of the Army will require a considerable number of technologists in each of the above named groups. The Navy Medical Department requirements will be similar except for dietitians, occupational therapy aids, orthopedic mechanics and dairy and food hygienists (inspectors) will not be needed. Notwithstanding the maintenance of this enrollment, the Navy also desires peace-time enlistment in the U. S. Naval Reserve, and male technologists who wish to enlist in the Naval Reserve are urged to communicate direct with the Commandant of the Naval District in which they reside. The address of their Commandant will be furnished upon request.

Technologists who qualify according to these general standards and who are willing to enroll for service as outlined above should communicate with the American National Red Cross, Washington, D. C.

New Cancer Foundation Established

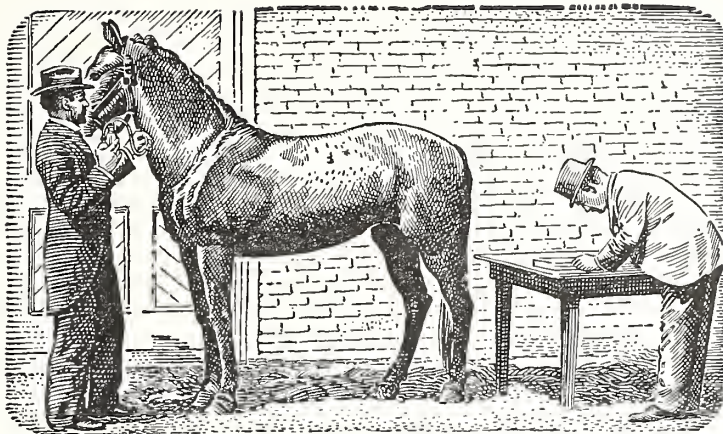
A foundation for the study of the treatment of cancer has been established at the University of Pennsylvania, Philadelphia. It will be known as the Foundation for the Study of Neoplastic Diseases, and will be supported by The Penn Mutual Life Insurance Company for a period of five years. The foundation will be under the immediate direction of Dr. John S. Lockwood, who will have the cooperation of all chiefs of service in the University Hospital.

BODY-SECTION RADIOGRAPHY

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The Physician's Bookshelf

Nelson's Loose-Leaf "Specialties in Medical Practice", edited by Edgar von Nuys Allen, M.D. (Thomas Nelson and Sons, New York; \$25.00). In these days of foolish certification of specialists and regimentation, all of which results in mutual admiration and higher cost of medical care, at the same time leaving the public dissatisfied with good medical care because it may lack streamlining and chrome plating, it is a pleasure to come upon anything which may contribute to normalcy. Here is a set of books gotten together in recognition of the fact that the standards of medical care are determined primarily by the quality of service which is offered by general practitioners, and secondarily by the extent to which the specialists recognize their own limitation and are familiar with the essential facts in other fields of medicine.

Certainly the physicians whom any patient consults must be able to look at the patient as a whole and to administer to the simpler needs no matter in what field these may fall. The Ohio State Medical Association has for several years been offering its annual program with this thought in mind. Also its whole postgraduate program of regional clinics and intensive lecture courses have been designed for this same purpose. It is to be hoped that the rank and file of our membership will support these. Otherwise, the reformers from outside will insist upon periodical examinations by the state for the general practitioner. This is the companion piece to the certification of specialists. Make no mistake about that! Well no matter which way this trend may veer, continuing education always will be based upon the printed word.

This loose-leaf system on the specialties treats those which must be dealt with by the general practitioner and the diagnostician. It presents a workable outline for the approach to the problem and gives clear instructions as to what to do and what not to do.

Volume I deals with Ophthalmology by Harry S. Gradle; Diseases of the Ear, Nose and Throat, by Lawrence R. Boies; Neurology, by Henry R. Viets; Psychiatry, by Lloyd H. Ziegler; The Vitamins and Vitamin Deficiency Diseases, by Dwight L. Wilbur; Allergy, by Frank A. Simon; Orthopedic Surgery, by Don King.

Volume II deals with Obstetrics and Gynecology by G. D. Royston; Endocrinology by Willard Owen Thompson; Urology by John L. Emmett; Proctology by Louis A. Buie.

This is put on the well known loose-leaf system of the publishers with provision for revision and expansion. In order to help stem the tide of criticism and regimentation every physician, but especially the diagnostician and the man in general practice, should arm himself with a set of the books.

Michigan Hospital Handbook, by Dorothy Ketcham, director of social services, University of Michigan Hospital (*Edwards Brothers, Inc., Ann Arbor, Michigan*, \$1.50) is an ideal, indispensable reference book on administrative and legal questions involving hospitals. Although chapters dealing with laws affecting hospitals are for the most part devoted to Michigan statutes, those chapters which deal with outstanding court decisions and administrative procedures are general in scope and are so comprehensive that they alone make this manual an essential part of the library of every hospital, hospital administrator and staff official. It is a major contribution to the hospital and welfare fields.

The Management of Obstetric Difficulties, by Paul Titus, M.D. (2nd Edition, \$10.00. *C. V. Mosby Company, St. Louis, Mo.*) has been enlarged to include a discussion of advances in the relief of sterility, the use of sulfanilamide in puerperal sepsis and pyelitis, the detailed technique of X-ray pelvimetry, technical advances in

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various operative procedures in the management of toxemia and of the anemias of pregnancy, improvements in obstetric analgesia and anesthesia. These additions, together with the 75 illustrations now totaling 368, make it the outstanding monograph on the subject.

Trapping The Common Cold, by George Sanford Foster, M.D. (\$1.25. *Fleming H. Revell Company, New York*) emphasizes that this affliction should not be taken lightly and places the responsibility where it belongs—upon the individual citizen. The author's thesis is that right living will protect against the sequela and complications of the common cold as well as many attacks of the disease itself. Since we cannot avoid exposure, we should build up our resistance and keep at the highest possible level. Regular hours of sleep with proper morning toilet; walking to work with deep breathing exercises as you go; good ventilation while at work; good posture at all times; a balanced diet of proper foods with no over-indulgence. Learn to wear just the right amount of clothing of the proper texture so that you are always comfortably cool. Then you may forget about drafts. The author condemns alcohol, coffee, and tobacco. If indulged in, must be moderately and its effect overcome by exercises. All of which sums up that the way to avoid colds is to practice the best that is known about personal hygiene.

Fetal and Neonatal Death, by Edith Potter, M.D. and Fred L. Adair, M.D. (\$1.50. *University of Chicago Press*) is a survey of the incidence, cause, and pathologic manifestations of the conditions producing death of the fetus in utero and the newborn baby. To the reviewer who in his 20 years as autopsy surgeon was often baffled by these deaths this book is something he would have given a great deal to have had at his side. It represents the beginning that should have been made long ago. It should be studied by all who meet the problem—obstetrician, general practitioner, resident, interne, and pathologist. It should be in the library for internes in every hospital where pregnant women are delivered.

Sex and Life, Forty Years of Biological and Medical Experiments, by Eugen Steinach, Ph.D., M.D. (\$3.75. *The Viking Press, New York*) presents the life work of the author in an orderly interpretation. These involved experiments on erotization, transplantation of sex glands; feminization of male and masculinization of females; the effects of vasoligation leading to the well-known "Steinach operation"; the nature and use of male and female hormones. These experiments the author feels offer an approach to our common problem of general senescence.

The Newer Nutrition in Pediatric Practice, by I. Newton Kugelmass, M.D. (\$10.00. *Lippincott, Philadelphia*) is an attempt to apply this newer

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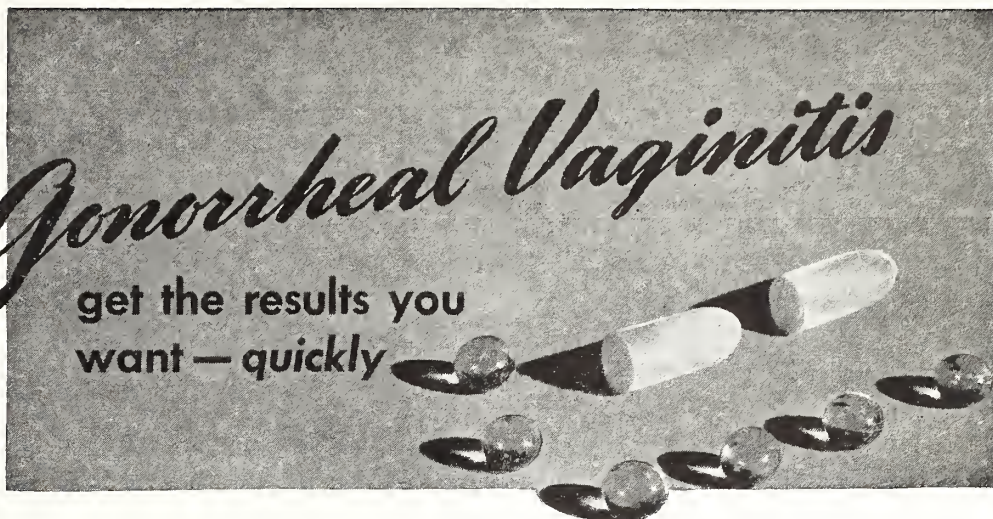
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¹ Cited by Lewis, R. M. and Adler, E. L.: *Amer. J. Surgery* 33:529 (Sept.) 1936.

² Lewis, R. M. and Adler, E. L.: *J. A. M. A.* 106:2054 (June 13) 1936.

³ TeLinde, Richard W.: *J. A. M. A.* 110:1633 (May 14) 1938.

⁴ Schaffler, G. C., Kanzler, R., and Schaffler, C.: *J. A. M. A.* 112:411 (Feb. 4) 1939.

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Intracranial Tumors of Infancy and Childhood, by Percival Bailey, M.D., Douglass N. Buchanan, M.D. and Paul C. Bucy, M.D. (\$5.00. *University of Chicago Press*) is the study of 100 consecutive cases verified by microscopical study. The literature is reviewed and the cases presented. Then the pathology, problems of diagnosis and results of treatment are analyzed. An authoritative monograph dedicated to the memory of Harvey Cushing.

Love Loyal, by Ralph E. Stewart, (\$1.00. *Cokesbury Press, Nashville*) contains the substance of talks to pupils of a senior high school in an attempt to help them find a path through the sex maze of adolescence leading to a profoundly satisfactory married life. It is another one of those books that the reviewer believes should be left around the house where there are children in high school.

Failure of the Circulation, by Tinsley Randolph Harrison, M.D. (\$4.00. 2nd Edition, *Williams and Wilkins, Baltimore, Md.*) is an attempt to bridge the gap between what we know about what happens with why it happens. The section on angina pectoris has been greatly expanded in this edition.

Vitamin D, by C. I. Reed, Ph.D., H. C. Struck, M.D. and I. E. Steck, M.D. (\$4.00. *University of Chicago Press*) is an interpretation of all pertinent data upon the subject in the light of the authors' personal studies. It covers the chemistry, physiology, pharmacology, pathology, experimental, and clinical investigations. Your reviewer has known the senior author since his student days and finds this book is done in his characteristically thorough fashion. Any one interested in nutrition must have this monograph in his library.

Opportunities for Medical Practice in the United States, by Daniel Harriss, Ph.D., vocational counselor, (*fifty cents from the author, 225 West 86th Street, New York City*) is a 12-page treatise discussing the problem of distribution of physicians, factors which should be considered by physicians seeking locations, and how the various states rank according to their relative capacity to absorb more physicians. Much factual material from documents of the American Medical Association and the United States Department of Commerce is presented. The ranking with respect to absorptive capacity for physicians places

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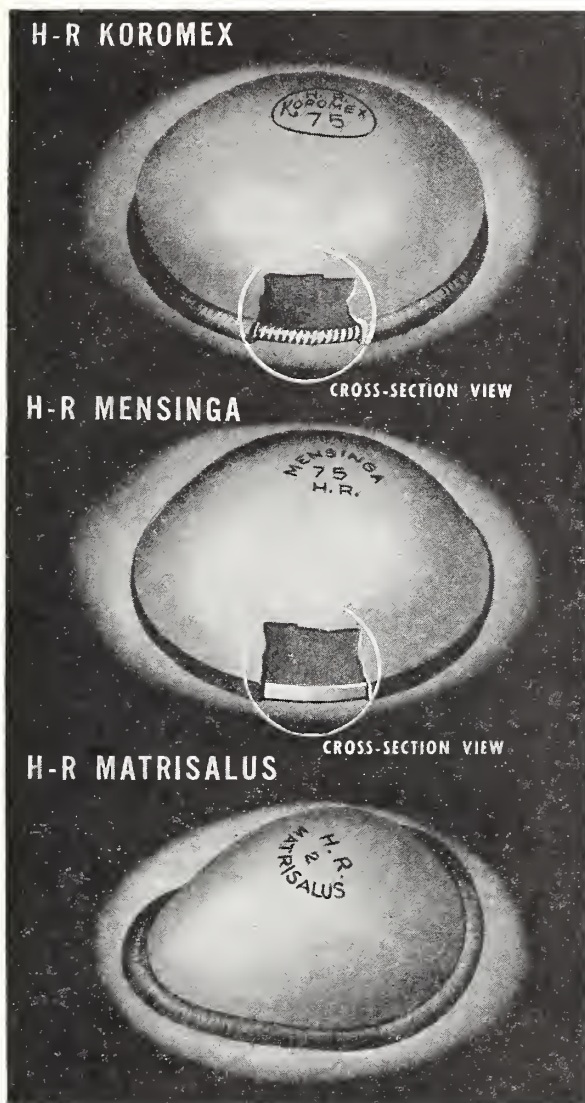
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Idaho at the top and Missouri at the bottom, Ohio occupying 37th position. The author points out that the ranking should not be interpreted too literally and mechanically but that it does present an accurate general picture of which states are best able to support more physicians and which probably should be disregarded by physicians looking for locations. The booklet should prove extremely beneficial to physicians who are just finishing their training or internships or who are for any reason seeking a place to establish a practice.

Citrus Fruits and Health. Clinical and scientific data from the literature of nutrition as related to citrus fruits. Compiled for the use of the medical and dental professions and published by the Florida Citrus Commission, Lakeland, Florida. This handy little manual contains a lot of useful information gathered from many scattered services. One hundred and twenty-seven references in all, worth asking for your own library.

The 1939 Year Book of General Medicine (\$3.00. *The Year Book Publishers, Chicago*), surveys with competent editorial criticism, all of the topics uppermost in the minds of medical men. Its 848 pages, 148 illustrations and three special colored plates boil down over 6,000 clinical papers for our convenience.

Your Baby and How to Care for It, by Lindsey W. Batten (\$1.50. *Harpers Brothers, New York*), distinguished physician to the Children's Hospital in Hempstead, is best described by its British title, *The Single Handed Mother*. It is a sane, well written book.

Unto the Fourth Generation, by Irving Simons, M.D., urologist, U.S.N. Hospital, Norfolk, Virginia (\$2.50. *E. P. Dutton & Company, New York*), is a text on gonorrhea and syphilis for laymen. It is a successful attempt to write about and not around these diseases. It is therefore generally informative.

Technical Methods for the Technician, by Anson Brown, M.D. (\$4.00, published by the author) is what its title indicates. It tells in the simplest of terms how to do all of the common examinations of a clinical laboratory. The form of loose leaves with a special double plastic ring holder

and fabricoid cover makes it stay open at a page. This is a great improvement for a manual of this kind. Technicians will welcome it as a ready, reliable, and handy reference.

Pneumoconiosis (Silicosis), by Lewis Gregory Cole, M.D., and William Gregory Cole, M.D. (*John B. Pierce Foundation, New York*), is the story of dusty lungs by the famous father and his son. We are reminded that dust is everywhere and that we are constantly inhaling it all of our lives. Health, economics, sociological and legal aspects are carefully considered. In short, the authors summarize "We believe that our investigation has proved that in more than 90 per cent of the cases the types of pneumoconiosis now recognized as 'silicosis' are not compensable; and that the two types heretofore unrecognized or not accepted silicosis are by all means compensable."

The Medical Career and Other Papers, by Harvey Cushing, M.D. (\$2.50. *Little, Brown and Company, Boston*), were edited and passed for the press by the author before he died. The key essay should be read by every medical educator and reformer. It is the best defense which I have ever read on the practice of Medicine as an Art and not a Science—not only is, but always it must ever remain. The rest of us should read for our own soul's good.

Your Child's Food, by Miriam E. Lowenberg (\$2.50. *Whittlesey House, New York*), assistant professor of foods and nutrition, Iowa State College, is an excellent presentation of the problem of feeding the family. Menus for the meals of one full year should prove most helpful to mothers who with all of their tasks must plan and prepare meals for the various aged members of their families.

Open New Offices

Among Ohio physicians who have recently opened new offices are the following: Dr. C. E. Richards, Gallipolis; Dr. W. W. Meade, Sidney; Dr. Harold W. Seff, Bethel; Dr. K. T. Edmonds, Delphos; Dr. G. S. Rodabaugh, Basil; Dr. K. O. Kennedy, Columbus; Dr. G. W. Jacoby, Ashley; Dr. Paul Foster, Gallipolis; Dr. R. G. Maninno, Newark; Dr. George H. Bonnell, Jr., Worthington; Dr. Victor B. Frederick, Urbana; Dr. L. H. Thomasson, Wellington.



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**Laryngoscope, St. Louis, 1937.
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OHI

News Notes

Athens—Dr. E. H. Hudson, Norris, Tenn., has been appointed professor of hygiene and director of the student health service at Ohio University, succeeding Dr. George B. Burger, who resigned to go into private practice at Covington, Ky.

Berea—Contracts have been let for a \$48,000 heating and laundry unit addition to Community Hospital.

Bridgeport—Dr. James O. Howells retired July 1 after 46 years in the practice of medicine here.

Chillicothe—Dr. George S. Mytinger will present his 10,000 disc library of phonograph records to Capital University Conservatory of Music, Columbus.

Circleville—Dr. A. D. Blackburn has been re-elected health commissioner of Pickaway County for two years.

Cincinnati—Dr. Clarence W. Betzner recently graduated from the Y.M.C.A. law school, after five years' part-time study.

Columbus—Dr. and Mrs. J. M. Wittenbrook announce the birth of twin sons, Frederick Lewis and John Richard, July 2.

Elyria—Dr. G. E. French returned to private practice July 1, after 37 years as city health commissioner. Dr. H. A. Robinson is his successor.

Huron—On June 29 Dr. N. E. Woessner celebrated his 71st birthday and the 47th anniversary of his entrance into the practice of medicine.

Marysville—Dr. H. G. Southard, health commissioner of Union County since 1924, with the exception of four years when he was State Director of Health in the cabinet of Governor George White, resigned July 1 to resume the private practice of medicine.

Medina—Dr. H. P. H. Robinson has retired from the private practice of medicine to devote his entire time to the duties of health commissioner of Medina County, a post which he has held since last July.

Orrville—Dr. George Crile, Jr., Cleveland, gave a health talk at a recent meeting of the Exchange Club.

Ottawa—Dr. L. M. Piatt, health commissioner of Putnam County for six years, will leave in August to begin a two-year course of postgraduate study in roentgenology in New York City.

Toledo—Dr. Millard C. Hanson resigned as city health commissioner, effective August 1, to become director of the syphilis control program at Pittsburgh, Pa.

Wilmington—Dr. A. C. Roberts, an honorary life member of the Clinton County Medical Society, retired July 1, after 50 years in the practice of medicine.

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Criteria for the Diagnosis of Occupational Skin Disease

C. GUY LANE, M.D.

NUMEROUS definitions of occupational disease^{1, 2} have been proposed by statute, by court decisions, etc., and the numerous state legislatures have adopted different schedules of diseases, both general and cutaneous, for which compensation is to be paid. Likewise numerous definitions of occupational dermatosis have been offered, and after much discussion the National Committee of Occupational Dermatoses has agreed upon the following definition: "An occupational dermatosis is a pathological condition of the skin for which occupational exposure can be shown to be a major, causal or contributory factor." It is a relatively simple definition as such things go and while it may not fulfill all the requirements of legal phraseology it does furnish a more definite basis for practical discussion at least.

In order to make possible any satisfactory definition, there must be formulated a clear cut picture of the characteristics of this particular entity. All disease entities in medicine have been created as a result of keen observation and the correlation of previously unrelated signs and symptoms often by numerous observers. Medical experience over a period of years has often established these clear cut pictures only to have them altered by the progress of science in devising new methods of differentiation. This fact should not prevent the establishment of criteria of this entity based on our present concepts.

A real difficulty, however, exists in the fact that the subject under discussion at this time is not a single disease but a group of skin diseases with the common etiological factor—occupation.

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The situation can perhaps be compared to tuberculosis of the skin. There are many different manifestations appearing on the skin as a result of the action of the tuberculosis bacillus or its toxins, as well as a group of conditions about which there is some doubt, so that the clinical characteristics of tuberculosis of the skin are difficult to define briefly.

Another difficulty lies in the fact that while occupation is the common cause of the occupational dermatoses there are also numerous other causes of many of these manifestations and many borderline conditions about which there is much contention concerning the occupational causation.

There are other difficulties which will be discussed later but even if it is a difficult problem to decide the occupational responsibility especially in many of these borderline cases, it is important to define as clearly as possible the medical standards by which the skin diseases due

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to occupation may be decided. Some suggestions have already been made on this problem.^{2, 3}

Courts, industrial accident boards, compensation commissions, the insurance companies,^{1, 4, 5} etc., are required to decide whether a given employee is entitled to compensation and for how long, and both the employer and employee are entitled to a fair review of the facts—medical and otherwise—in a particular case, and a judgment considered in the light of the standards accepted as characteristic of occupational dermatoses. It is imperative that dermatologists participate in the establishment of such medical standards in view of their training and experience with manifestations on the skin and the possible causative factors of such manifestations. No such criteria have yet been approved, but it is expected that the National Committee on Occupational Dermatoses will make recommendations to the new Council of Industrial Health of the American Medical Association on this subject in order to stimulate the formulation of such criteria and their general acceptance.

In the discussion of definite criteria of occupational skin disease it is necessary to make four assumptions. In the first place it is necessary to assume that a correct diagnosis of the skin manifestations has been made in an individual case or a group of cases. It is only necessary to point out that a markedly exaggerated case of scabies, perhaps irritated by treatment, occurring a few weeks after the undertaking of a new job might be interpreted as an occupational dermatosis by a physician unfamiliar with skin disease. Frequently atypical cases of erythema multiforme, lichen planus and other diseases are referred to dermatologists under suspicion of being occupational in origin.

I always remember the workman with a herpes zoster of the arm who was referred by the insurance company for an opinion because two physicians had certified that the irritation had been caused by his work in making waterproof coats. The case was a very definite herpes zoster and by no interpretation, in my opinion, could be classed as occupational in origin.

A second assumption to be made is that all the facts in the history of the disease have been developed and the treatment, both original and later, recorded. I say this with some emphasis because so frequently one sees an original non-occupational minor skin irritation or injury overtreated by iodine, sulpho-naphthol, ammoniated mercury or proprietary preparations, etc., with a resultant dermatitis which a person might claim to be an occupational dermatitis. An accurate story is often difficult to elicit by reason of the long lapse of time after the original onset before the patient is seen, and perhaps by reason of language difficulty, or the intelligence level of the individual workman, to say nothing of the distortions which may occur by reason of in-

correct observation or attempts at definite misrepresentation.

I remember the doubt cast upon an insurance case when a young woman of 21, a shoemaker, with a dermatitis venenata of the hands and arms suggesting contact with poison ivy, admitted after considerable questioning that she participated in a picnic in the woods three days before the onset of the present dermatitis. She was claiming that the eruption came from contact with some brown shoes upon which she worked.

The third assumption applies to the obtaining of as complete data about occupation as possible. It is my belief that two histories should be taken—one pertaining to the disease—the second about the process in which the individual participates, the substances used, the manner of using, the methods of cleaning and cleaning agents used, etc. It is also well to have the history reviewed by two physicians if possible, for it is often found that additional facts will be remembered on a second questioning, or a different phase will be brought out. This is the opportunity to check the two stories. In any large industrial plant it is probably advisable to have a definite form for recording the necessary data, both regarding the disease and the particular occupation.

The fourth assumption is that a careful examination has been made in the individual, not only of the areas presented by the workingman, but also of the rest of the skin surface and sufficient general examination as may be pertinent to the particular case. Too often a person may fail to report older lesions of psoriasis, or even syphilis, or a more or less serious fungus infection, or other lesions which may aid in the establishment of a definite diagnosis.

I recall the hands of a machinist claiming irritation from oil. On further examination characteristic patches of psoriasis were found on elbows and knees and scattered throughout scalp, and it was my opinion that the lesions on the hands were consistent with this diagnosis and not caused by the oil.

If it is taken for granted that a definite diagnosis has been established from the data obtained by a careful history and examination, there are certain items in this data which furnish the most important information for the physician as to whether a particular individual is entitled to compensation because of a skin disease due to an occupational factor.

HISTORY

TABLE 1

Determination of Occupational Dermatitis is based upon a critical examination of essential features in the history:

1. The time relationship between exposure and onset of the dermatosis.
2. The employment in an occupation with a high cutaneous morbidity.

3. Employment in contact with a substance or process known to have produced similar skin changes.

4. The involvement of fellow-workers with similar manifestations.

5. A possible exposure outside occupation to an agent which could cause similar lesions.

6. The site of the onset of the dermatosis.

7. Attacks of a dermatitis upon repeated exposures.

8. The repeated improvement of the dermatitis upon cessation of exposures.

1. Time relationship. The time relationship between the alleged contact or exposure or injury and the appearance of the dermatosis in question often has an important bearing on an opinion in a given case. Different diseases have various incubation periods. An acute dermatitis may develop in a few hours after exposure, while a keloid may develop several months after an original injury, and exposure to X-ray may not produce cutaneous changes for several years. Thus the time relationship between the beginning of the job by a particular claimant and the onset of the skin manifestations must be consistent with the known facts of a given disease if this claim is to be accepted for compensation.

As examples of the importance of the time relationship, two cases can be cited. A laborer presented himself with a thickened crusted lesion on the back of his hand of three days' duration. He claimed that he had struck his hand against a rock, causing the small abrasion, on the first day of his work on a road construction job. He stated that the present sore developed the next day and his story was substantiated by his foreman. Darkfield examination showed characteristic *spirocheta pallida*. Compensation was denied on the ground that the incubation period of syphilis is longer and infection antedated his present job. Another man worked three days in a photographic department before being discharged and developed a dermatitis on his hands two weeks after his discharge. It was decided that there was no industrial liability in view of the length of time since discharge and because of a possible factor in the window cleaning which he did at home just previous to the onset of his present condition.

The fact that a workman has been employed at a certain job for many years is often cited in argument against the occupational character of a recent dermatitis. It is true, of course, that a man may work at a job for many years and not have any skin disturbance and suddenly have an acute affair, but these attacks are often traced to the introduction of a new ingredient in the process, or to exposure to an outside irritant, and of course an acquired sensitivity can be developed after many years of exposure. Some of these occur after a period of absence from exposure and on return to work. But in general the time relationship is often an important factor.

2. Hazardous occupations. The history also furnishes important data about the occupation. If the particular occupation is one in which there has been reported previously a high incidence of morbidity with reference to the skin,^{6,7} there is a stronger assumption that the condition is occupational. Some occupations are distinctly hazardous so far as the skin is concerned. (See Table 2).

TABLE 2

Occupations which have a high incidence of skin disturbance:

Dishwashers	Building cleaners
Shoe treers	Tanners
Cement workers	Dye handlers
Lithographers	Painters
Soda fountain workers	Machinists
Bakers	Chrome workers
Gardeners	Photographers
Electroplaters	Chemical workers

Workers in the occupations listed above are very liable to have skin disturbances unless extreme care is taken and great vigilance maintained to assure the constant application of the preventive measures devised for the most hazardous of the occupations. It is, however, not to be assumed that all irritations on the hands in a shoe cleaner are due to oil solvents, alkalis, dyes, etc., or that all eruptions on the hands of dentists are due to novocain. The typical lesions of lichen planus on a dentist or of scabies on a shoe worker may possibly be found as well as occupational dermatoses. At the same time the knowledge that an individual is employed under a known dermatological hazard necessitates a more careful review of that particular case.

3. Harmful agents. The history may not show an occupation usually associated with a known occupational hazard but may furnish evidence of contact with a substance or process known to have caused a high incidence of skin disease.⁸ (See Table 3.) Again careful investigation needs to be made as to whether that particular substance is the cause or whether some other pos-

TABLE 3

Agents which frequently produce skin disturbance:

Alkalis	Paints
Metals	Plants
Dyes	Acids
Petroleum products	Dust
Solvents	Rubber compounds

sible cause can be found. For example, the mere finding of formalin or potash, etc., as an agent in a particular process should raise a suspicion that it is responsible for the skin disturbance but it is to be remembered that a similar picture on the skin could be raised by a primrose plant or painting at home.

Cleansing agents should be remembered as a frequent cause of an occupational dermatitis. Water, alkaline materials, degreasing agents and

oil are often a direct or participating cause of skin disturbances.

4. **Fellow workers.** If the history indicates that other workers in the same factory, at the same job, are also affected, there is additional evidence of the possibility of an occupational cause. It was a common finding in machinists using "cutting oils" to examine one worker and obtain a history of several other workers with skin eruptions at the same job. The same story is often obtained from a shoe treer. At the same time not all such workers have an eruption similar to that of the original claimant. Home contacts and other skin diseases will often account for the manifestations thought by the workers to be due to the occupational factor. Schwartz⁹ mentions a group of employees who believed that carbon paper was responsible for several skin eruptions in the clerical staff. Careful review of these cases showed only a few which resembled a contact dermatitis and some of the eruptions had begun before entering upon the present jobs. Patch tests were all negative and the final opinion was that there were no cases of occupational origin.

5. **Other contacts.** In the history also an attempt should be made to ascertain the possibility of contacts outside the occupation with agents which could produce similar manifestations on the skin. (See Table 4.) The lack of such exposure is another bit of evidence pointing to the

TABLE 4
OTHER CONTACTS

Dermatitis—plants, paints, hobbies, etc., at home.
Folliculitis—other oil or tar contacts.
Ulcer—other trauma at work, sport, etc.
Keloid—other mechanical or chemical trauma
Impetigo—home contacts, etc.
Pyogenic infections—nonoccupational trauma, etc.

occupation as a cause. The confusion which may arise is shown by the following case. An undertaker's assistant, working with formalin, developed a mild subacute dermatitis of his hands. A careful history showed that the claimant was doing considerable photography and developing his own negatives and prints. It was extremely difficult to decide the liability in this case until it was found that the skin returned to normal, and remained normal while at work, when rubber gloves were donned for his photography and adequate measures were taken to prevent contacts with his chemicals at home.

6. **Site of onset—maximum exposure.** The fact that most occupational diseases occur first at the sites of maximum exposure to a particular agent is an important consideration in the history in the placing of responsibility for a disease process. Exceptions will occur but if the initial onset is at some other site less exposed to the substances with which the worker is in contact, a careful investigation is necessary to determine

if another factor has entered the picture. Likewise these sites of maximum exposure are apt to be most severely involved.

An interesting example of this item recently came to my attention. A tannery worker who had had two previous attacks of "chrome itch" was referred to me regarding an extensive dermatitis which had subsided greatly before I saw him. His other two attacks had begun on his hands, while the present attack had begun on his legs and later involved other areas quite extensively. He had been working at this job only a week when the present eruption began and he had worked at this same job twice in the last six months without any effect on his skin. It also developed that shortly after a slight itching had appeared on his legs he had used powdered sulphur quite vigorously and as the eruption spread he had extended the use of sulphur as well as other remedial agents. With these two factors, the onset on the legs and use of sulphur, it was my opinion that the present attack was not occupational in origin.

7. **Exposure—attacks.** The history of several attacks of dermatitis following closely upon returning to a job after a lay-off is important evidence that the irritation is caused by a substance used in that particular job. Succeeding attacks are apt to increase in severity, the latent period perhaps becoming shorter with subsequent attacks. Usually an attack will appear within two to three days but in certain cases the latent period varies from a few hours to six or seven days.

There was the storekeeper in a large industrial plant who had an obstinate dermatitis of hands, arms and face of several weeks' duration. He handled many substances in his work and he was finally prevailed upon to lay off. After three weeks he was nearly well and returned to his work. In three days he had a rather marked exacerbation and was out for another three weeks. A second relapse followed his return to work and he was out for a longer period. By careful observation and patch tests the twine he was using proved to be the cause and by omitting it and using other methods of packaging he continued to work without trouble. Similar cases are frequent and this fact is important in determining industrial causation.

8. **Lay-offs—improvement.** In a similar way the relief which comes when an affected workman is away from his job is another primary characteristic of occupational dermatitis. If one or two of these flare-ups followed by improvement occur, a coincidence can be considered, but with other attacks a causal relationship is indicated. The case just cited indicates the importance to be placed on the repeated improvement occurring when contact with a possible irritant is stopped.

EXAMINATION
TABLE 5

The determination of occupational dermatosis is also based upon a critical review of certain items in the examination:

1. The diagnosis of a cutaneous disease in which a possible occupational cause has been established.
2. The finding of cutaneous lesions consistent with the claimed exposure.
3. The maximum involvement of the skin at the site of maximum exposure or of trauma.
4. The characteristic "stigmata" of a particular occupation.
5. Any dermatitis or eczema limited to the hands and arms.
6. Evaluation of skin tests.

Confirmation of data obtained in history and examination.

1. Diagnosis. In general a claimant to be considered as an occupational case must have as a diagnosis, made by a physician with suitable training and experience in skin disease, a disease which previous experience has shown can be caused by an occupational factor. I do not mean that other diseases may not be proved eventually to be caused by substances used in work, but it is an item of importance if the diagnosis is made of a disease in which previous cases of this disease have been shown to have an occupational cause. It is an item of even more importance if the diagnosis is a disease in which no previous cases have been reported as due to occupation. Most authorities do not consider as possibly industrial many skin diseases, a few of which are shown in Table 6.

TABLE 6

NON-OCCUPATIONAL DERMATOSES

Alopecia areata	Nevi
Dermatitis herpetiformis	Lichen planus
Dermatitis medicamentosa	Lupus vulgaris
Erythema multiforme	Lupus erythematosus
Erythema nodosum	Psoriasis
Herpes zoster, etc.	Urticaria, etc.

One cannot tabulate a complete list of the diseases in which an occupational factor is possible, but some of the most important skin diseases with a possible causation by occupation are shown in Table 7.

TABLE 7

The Most Frequent Manifestations of Skin Disease Due to Occupation.

	Infections
Acne	
Burns	
Calluses	
Chilblains	Actinomycosis
Dermatitis, acute	Anthrax
Dermatitis, chronic	Blastomycosis
Eczema	Erysipeloid
Epithelioma	Impetigo
Folliculitis	Paronychia
Keloids	Pus infections
Keratosis	Syphilis
Radiodermatitis	Tinea
Ulcers	Tuberculosis

It should be remembered, however, that a skin disease may be exaggerated by occupational ex-

posures, or predispose to an occupational dermatitis, or that there may exist a coincident occupational dermatosis and a non-occupational dermatosis. Furthermore, in some states the complications of occupational dermatoses, whether by therapy or otherwise, are entitled to compensation. At the same time the diagnosis of a disease with possible occupational causation does not always indicate that the disease is of occupational origin. Thus dermatitis of the hands in masons, or keloids on a laundress' hands are not always due to occupation. Downing⁵ cites an example of a non-occupational and occupational dermatosis in the same person. It was a case of industrial dermatitis of the hands and with active lesions of late syphilis as well. He was awarded compensation for the dermatitis without regard for the syphilis. Another similar example was the worker with a definite erythema multiforme of the hands and arms together with very marked calluses of a leather worker. No compensation was ordered because no disability existed from the occupational disease, the calluses.

2. Lesions consistent. The lesions present in a particular case must be consistent with the exposure claimed if it is to be considered as a compensation case. It is not enough to make a diagnosis of a possible occupational disease, but the lesions present and their arrangement should be consistent with the story regarding the substances to which the individual is exposed. Thus an acute dermatitis in a shoe treer with streaks of redness and vesicles on hands, arms and face should lead the investigator to interview that person and possibly his associates to ascertain a possible contact with shrubs or vines. In numerous instances, of course, it is not possible to deduce the actual agent from the manifestations presented but such lesions should be consistent with those previously described as accompanying the claimed exposure.

The following case points out, first, the need for the correct diagnosis, second, the importance of a review of a case to be sure that the findings are consistent with the worker's exposure, and, third, the emphasis upon time relationship.

A man, 25 years old, was referred by an insurance company some years ago regarding discomfort, thickening and fissuring of the palm of one hand. He had been assembling radio apparatus for the past one and one-half years. An examination showed the man to have a definite radiodermatitis of a two-inch area of his palm which could not be explained by his present job. Further questioning brought out the fact that the man had previously assembled dental X-ray apparatus. At this earlier job, after putting on the cone, he pressed the switch and held his hand over the cone while examining it to ascertain if it was tight. Thus adequate exposure to X-ray could be

proved and the responsibility could be passed on to the insurance company of the first employer.

3. **Maximum involvement.** In general it can be said that the site of maximum involvement will be present at the site of trauma or of maximum exposure to an agent. It is possible that various therapeutic measures may alter this localization but at least the absence of lesions at the site of maximum exposure is a possible argument against the particular occupational agent which is claimed.

4. **Stigmata.** Various stigmata, so called, of numerous different occupations are important manifestations of occupational causation. They have been reported from time to time and many of these are quite characteristic of the individual occupation. These are usually calluses or stains developed at the sites of pressure of various tools used by the worker. Many of these are among the oldest known evidences of occupational disease. Some of them are very seldom seen in clinics now because of the introduction of machine methods into industry. They frequently cause no disability and indeed the formation of calluses is a protective mechanism and allows the individual to continue his work with less difficulty. Most of the lesions will disappear when the individual is away from his particular work for a period. Some of the most characteristic stigmata⁶ are shown in Table 8. There are also the stigmata on nails from the stains of materials

TABLE 8 OCCUPATIONAL STIGMATA	
Calluses of.....	basket makers cutters of cloth leather stakers metal burnishers engravers
Scars of.....	moulders cobblers
Tattooing of.....	coal miners stone workers
Stains of.....	dyers photographers, etc.

used in work as in dye-workers, photographers, etc., as well as the changes from friction and the action of various chemicals, especially alkalis.

5. **Hands and arms.** The fact that hands and arms are involved with a dermatitis or eczema limited to these areas is most certainly a matter for serious consideration as to industrial origin, regardless of the individual concerned (see Table 9). This localization is not as important in other occupational dermatoses. I have been

TABLE 9
LOCATION OF OCCUPATIONAL DERMATOSES
(Downing)

Hands.....	47%
Fingers.....	13%
Forearms.....	7%
Feet.....	67%
Legs.....	5%
Face.....	4%
Arms.....	2%
Miscellaneous.....	9%

impressed with this localization in an experience of many years. Recently, Downing's⁷ study of 2,000 cases presents further evidence. Sixty-seven per cent of these cases showed hands and arms most frequently involved. Of course, all occupational agents do not produce dermatitis of the hands and arms, nor are all cases of dermatitis limited to the hands and forearms due to occupational cause.

The need for careful differential diagnosis of hand lesions is emphasized by the following table (see Table 10), showing some of the dermatoses involving the hands.

TABLE 10
DERMATOSES INVOLVING HANDS

Angioneurotic edema	Pellagra
Bacterid, pustular	Psoriasis
Blastomycosis	Pustular
Carcinoma	Squamous
Dermatitis	Prurigo
Dysidrosis	Raynaud's disease
	Sarcoma, Kaposi
Epidermolysis bullosa	
Epidermophytosis	Scabies
Epidermophytid	Scleroderma
Erysipeloid	Sporotrichosis
Erythema multiforme	Synovial cyst
	Syphilis
Erythema pernio	Primary
Furuncles	Secondary
Granuloma annulare	Late
Granuloma pyogenicum	
Impetigo contagiosa	Tuberculid
	Tuberculosis
Keratoderma palmaris et plantaris	Vitiligo
Keratosis	Verruca
Actin c	Xeroderma
Arsenical	pigmentosum

6. **Skin tests.** Skin tests may furnish important evidence in the determination of an occupational dermatitis by the detection or confirmation of the causal factor. Undue emphasis has been placed upon the results of skin tests in the determination of liability in industrial dermatoses. The evidence obtained by such tests, demands careful interpretation. These tests should be performed in accordance with a generally accepted technic until further experience has accumulated to indicate that other technics furnish more reliable information. Thus the method of application, the duration of contact, the strength of the material applied, the site of application, etc., enter into the interpretation of these tests. The patch tests have proved to be of more value in the industrial dermatitis cases but numerous pitfalls still persist. A positive test does not always incriminate a given substance, nor does a negative report rule it out as a causal factor. It is to be remembered that the tests themselves may be the means of sensitizing the person to an agent and that they may exaggerate markedly an existing process. Numerous examples of these effects have been cited in the literature.

The confirmation of the data accumulated in

the history and examination of the individual worker is often a necessary step in making a definite decision on the claim of an occupational dermatosis. Further investigation is usually desirable. Actual inspection of the materials and process involved will often furnish additional facts, and conference with foremen, chemists, safety engineers, etc., will frequently bring out details not known to workmen and create a clearer picture of the actual hazards encountered at a particular job. It will often be good policy to obtain data from the sources of certain supplies or other users of the same products. While this item is perhaps not a definite criterion, it is an essential step in the determination of the causal factor in a given case.

Let me review a few cases with these criteria in mind.

Case 1. A man of 56 presents himself with a dermatitis of the hands of six weeks' duration. For two and one-half months before has been doing janitor's work and washing walls. He has



Fig. 1. Dermatitis—alkali

used Supersuds, often scooping up handfuls of the powder to put in his pail of water. He has also used the powder on his hands with water for cleansing purposes. (Fig. 1).

It is to be wondered that the eruption did not appear before, but the time relationship is not inconsistent. His occupation has resulted in many similar cases. The agent, an alkaline cleaning powder, is known to have caused similar lesions and the lesions here have occurred at the site of maximum exposure. There was no exposure found to any other substance which would cause such lesions. In addition his hands cleared very quickly when he stopped work and used relatively simple treatment.

Diagnosis: Occupational Dermatitis—Dermatitis—janitor—alkali.

Case 2. Case 2 was a carpenter, 59 years of age. He had been a carpenter for 40 years, much of the time on outside work. He came to the hospital with an epithelioma of four years' duration on his lower lip, and another of his left temple. He had numerous keratoses of many years' duration on the dorsal surfaces of both hands (Fig. 2). He would not have had these keratoses if he had not worked in the sun and probably sustained many minor trauma in addition.

His occupation in the sun is well recognized as a causal factor. The lesions are consistent with

his maximum exposure and with those known to have been produced by sun. No other factor to cause these lesions was found.

Diagnosis: Occupational Dermatitis—Keratoses—carpenter—sun.



Fig. 2. Keratoses—carpenter—sun

Case 3. A 44-year-old housewife states that for five years she has had recurrent itching between the third and fourth fingers of her left hand with lesions similar to the appearance on admission. The present attack has lasted two months. (Fig. 3). She does her own housework and has her hands much in soap and water. She shows maceration and redness, most marked on the third web of left hand and adjacent lateral surfaces of fingers. Both microscopic examination and culture show monilia.

The diagnosis is a well recognized entity with presence of a yeast in the lesion confirmed. The location and lesions are typical and the soap and water with the chubby fingers provide the maceration required for the establishment of the yeast.

Diagnosis: Occupational Dermatitis—Erosio interdigitalis blastomycetica—housewife—monilia.



Fig. 3. Erosio interdigitalis blastomycetica

Case 4. Case 4 is an unusual manifestation. This 42-year-old man started milking cows two days before these lesions started, about two

weeks before he was examined. They started as small erosions on the terminal phalanges of his two forefingers from the friction of his fingers during milking. They increased in size and in the last five days have oozed and become crusted. (Fig. 4). There was slight enlargement and tenderness of epitrochlear and axillary glands. Cultures showed only staphylococcus aureus.

While the condition is unusual, the appearance of the lesions two days after starting to milk and the location at site of maximum exposure and friction constitute good evidence. Furthermore the lesions are consistent with similar lesions which have been reported in previous cases.

Diagnosis: Occupational Dermatitis—Milker's nodules.



Fig. 4. Milker's nodules

Such are the items of importance in the estimation of occupational dermatoses. In only a few cases perhaps will it be possible to establish all these criteria beyond any doubt. In many cases, however, by a critical evaluation of these factors here enumerated it will be possible to clarify an opinion in the individual case. In some of these it will be possible to state definitely that a case is not occupational. At the same time there will be numerous cases of borderline nature with discrepancies in the history, with indeterminate signs, with perhaps unknown exposures, etc., even if the case is seen early and complete cooperation obtained, in which an absolutely definite answer cannot be given from the medical standpoint. The answer which will have to be given by the medical evidence even with the best judgment of the physician or physicians concerned is "probably occupational" or "probably not occupational", with emphasis upon the criteria by which such a judgment was reached.

The diagnosis of occupational skin disease is often missed because of failure to think of the possibility of an occupational factor in the review

of a particular case. On the other hand the diagnosis has often been made wrongly because of the strong conviction of the employee that his skin trouble was industrial, as well as failure to consider some of the items which have been emphasized above. In general a decision upon occupational skin disease will need to be made in about 10 per cent of all cases of skin disease.

CONCLUSIONS

In order to render a decision that a particular individual has an occupational dermatosis, after a careful review of the medical facts, the physician should base his opinion on these items in the history:

1. That the time relationship between the exposure to the agent and the onset of the dermatosis in that case is correct for that particular disease;
2. That the individual has an occupation with a high cutaneous morbidity;
3. That he has been working in contact with an agent known to have produced similar changes in the skin;
4. That the site of the onset of the skin disease coincides with the site of maximum exposure or of trauma;
5. That some of his fellow workers with the same agent have similar manifestations;
6. That no possible exposure outside occupation has been found to an agent which could cause similar lesions;
7. That if the diagnosis is dermatitis, the history of multiple attacks coming after exposure and re-exposures to an agent followed by improvement and clearing after cessation of exposures constitutes most convincing evidence of the occupational factor as a cause.

The physician should further base his decision on these items in the examination:

1. That the diagnosis is a disease in which a possible occupational cause has been established;
2. That the lesions present are consistent with those known to have followed the claimed exposure of trauma;
3. That the site of maximum involvement is consistent with the site of maximum exposures as revealed by the history;
4. That characteristic "stigmata" if present are confirmatory evidence of the occupation of the individual;
5. That the results of patch tests properly performed and interpreted agree with the findings of the history and examination if the diagnosis is dermatitis.

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Status Asthmaticus

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THE introduction of epinephrin has simplified the treatment of the usual attack of asthma. However, in the case of status asthmaticus, sometimes known as asthmatic crisis or asthmatic shock, the doctor must tax his patience and ingenuity to overcome the prolonged and intense dyspnea which does not yield to epinephrin. It is our object to describe the entity status asthmaticus. We shall also attempt, from clinical experience, from a consideration of the pathological processes involved, and from the pharmacologic action of various drugs, to evolve a rational, orderly and effective therapy. We also wish to deprecate the use of certain drugs which serve only to weaken an already exhausted patient and caution against drugs which are disadvantageous or definitely dangerous. It is obviously impossible to devise a definite routine of treatment. The exigencies of the case and the availability of materials and equipment will entail considerable variation. Nevertheless, a program may be outlined which will bring into play those drugs and procedures most apt to afford relief and that with a minimum of delay.

Status asthmaticus, while unusual, is not a rare condition. It would be conservative to say that the average allergist is confronted with status several times a year, and that death in status is not foreign to his experience. Any patient subject to asthmatic seizures may at some time suffer an attack which proves intractable to his usual medication. This may occur in both the intrinsic and extrinsic type, in the old and the young, and without regard to the duration of the asthmatic state. Certain individuals are more prone to become so afflicted than others. Our experience and a perusal of case histories described in the literature will show this tendency. Most cases are drawn from the intrinsic group where the onset is past middle age and the duration of the asthmatic state comparatively long. Another large group is found among the pollen asthmas, even though the percentage of pollen asthmas which become intractable is small. I would repeat that any asthmatic may, at some time, find himself in a condition of status asthmaticus.

The usual history will show that the degree of relief obtained from epinephrin decreases. At first the number of injections increases as the effectiveness of epinephrin decreases. The patient now resorts to larger doses and later even these prove ineffective. There is another type which resembles anaphalactic shock in animals where,

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after the ingestion of a drug such as aspirin or the injection of an overdose of antigen, or the natural exposure to an overwhelming amount of atopen, the patient is thrown into an asthmatic state which resists the action of epinephrin. Waldbott¹ differentiates the latter type calling it allergic shock.

There is considerable controversy with regard to the pathological findings in asthma. Some deny that asthma has a characteristic pathology. There is no doubt that the lung pathology is dependent on many ancillary factors. The age of the patient, the duration of the asthmatic state, the duration of the current attack and the presence or absence of concomitant acute or chronic infection will influence the picture. Nevertheless, one can expect to find most or all of the following lung pathology in those dying in status asthmaticus:

MACROSCOPIC

1. Areas of emphysema with dilatation of the smaller bronchi;
2. Increased thickness of the walls of the bronchi with narrowed lumina;
3. Increased thickness and infolding of the mucous membrane;
4. Excess mucous with dense, fibrinous plugs, loose or adherent to the bronchi, in some cases completely obstructing the passageway.

MICROSCOPIC

1. Mucous plugging of the smaller bronchioles;
2. Increased thickness and infolding of the mucous membrane of bronchi larger than two to three mms.
3. Thickening and hyalinization of the basement membrane;
4. Edema of the submucosa with engorgement of blood vessels.
5. Hypertrophy of bronchial musculature.
6. Hyperplasia of glands with increased secretion;
7. Infiltration of mucosa, submucosa, glands, muscles and even cartilage with eosinophiles plasma cells, neutrophiles and lymphocytes.

With the exception of the intensity of the picture and especially the degree of mucous plugging, all these findings may be found in the

lungs of the average asthmatic: dying of other causes.

Clinically, the patient presents a picture of extreme dyspnea. He has but one object and that is to snatch a sufficient supply of air for his bodily needs. This he does with frequent short gasps effected with great difficulty. The upright posture is assumed to aid the efficacy of the voluntary muscles of respiration. A clammy perspiration is on his forehead; his mouth is dry; his pulse is rapid and may be irregular, even thready; his cough is dry and ineffective. There may be some elevation of temperature, nausea and vomiting and a complaint of headache and weakness. The skin may be cyanotic. Later, dyspnea continuing unabated, the patient acquires a haggard, anxious, drawn expression and in other ways gives evidence that the struggle is drawing heavily upon his vital reserves. It is truly a desperate picture and may last from several days to a week. With the passage of time, the attitude of the physician turns from concern, to alarm, to despair—for this is the type who may die in asthma.

Due to the severity and duration of the illness, the patient must be treated from the standpoint of general therapy apart from the most important symptom of dyspnea. He should be hospitalized, preferably in a private room. It will allow the patient rest, a quiet atmosphere, and may serve to eliminate some allergic contact he had at home. To enforce the latter, the room should be as bare as possible and the pillows and mattresses covered with impervious sheeting. If an allergen-free room is available, this should be employed. The use of the percipitron, which electro magnetically removes pollen from the air, is especially recommended for pollen cases. The head and shoulders should be elevated to facilitate breathing. No movement, unless absolutely necessary, should be allowed. A warm application should be made to the chest and cold to the head. The patient has had little nourishment and inadequate fluid intake for some time. This may be remedied by glucose solution, subcutaneously or intravenously. If there has been a chloride loss, glucose may be dissolved in normal saline solution. The diet should be liquid, since it provides fluids, is easily digested, and causes the expenditure of little effort. Petrolagar should be given to aid evacuation. Fifteen to twenty minims of saturated solution of potassium iodide, well diluted with water or milk, should be given three times a day. This tends to liquify secretions and possibly aids in reducing the tenacity of adherent plugs.

The general therapy having been considered, we may now devote ourselves to conquering the dyspnea proper. The results with aminophyllin in solution, grains $3\frac{3}{4}$ to $7\frac{1}{2}$ intravenously, has given such promise of success, that it should be

given without further ado. The drug in 10 or 20 cc. solution should be administered slowly at the rate of 2 cc. per minute. Reactions, such as a feeling of warmth, flushing, burning of the eyes, nausea, vomiting, etc., are evanescent and so inconsequential as to be disregarded. Care must be taken to avoid injection outside the vein, as considerable irritation may follow. The response is often dramatic. Dyspnea may be relieved before withdrawal of the needle. Injections may be repeated at frequent intervals. In our experience all cases do not respond, nor does each individual respond every time. Efron² while not stating the number of cases, says that it is effective in about two-thirds. Herman and Aynesworth³ found it effective in 31 of 41 injections. Individual reports attesting its efficacy are numerous. Its mode of action in relieving dyspnea is not entirely clear. We do know from the work of Green, Paul and Feller⁴ that it lowers intrathecal and venous blood pressures. We know from the experiments of Young and Gilbert⁵ that it apparently has a dilating effect upon the bronchial musculature. Since bronchospasm is not universally accepted as the mechanism in bronchial asthma, and since the influence of increased venous and intrathecal pressures have not been evaluated in this condition, we must continue to use aminophyllin on purely empirical grounds. The use of caffeine, which is also a xanthine derivative, has been advocated by many including Lamson⁶ and Piness⁷ in status asthmaticus. It may be given by mouth in beverage form or intramuscularly as caffeine sodium benzoate. Lamson advises the injection of the latter grains $7\frac{1}{2}$ every fifteen minutes times four. Since the intravenous use of aminophyllin has been introduced, the use of caffeine in status asthmaticus has declined.

Helium has come as a great boon to the treatment of status asthmaticus. Where equipment and availability permit, helium should be employed where relief has not been obtained with the measures mentioned thus far. We quote freely from Barach⁸ for much of the following. In asthma there is a considerable increase in negative intrapleural pressure which serves to produce emphysema, promotes exudation of serous material into the alveoli and retards filling of the left heart. These factors in status asthmaticus tend to produce a vicious cycle, thus maintaining and even increasing the dyspnea. A mixture of helium 80 per cent and oxygen 20 per cent is one-third the density of air and the force required to move the helium and oxygen mixture is approximately one-half that required for air. Improvement, if it occurs following the use of this mixture, is brought about first by decreasing the respiratory effort for pulmonary ventilation and, second, by relieving the circulatory complications and its ill effects

through the decrease in intrapleural negative pressure. In this connection I would like to venture a further hypothesis. Due to the greater diffusibility of helium and oxygen, the mixture is more apt to penetrate below the relatively obstructing mucous plugs. The propulsive force of a cough may now be transmitted to the plugs, thereby raising them and aiding in clearing the bronchial lumen.

The technique of administration, as described by W. R. Lovelace,⁹ is as follows: a Boothby mask attached to a cylinder of helium and oxygen mixture is employed. This obviates any great care in regulating the relative amounts of the constituents where two cylinders are used. It also eases one's mind as to the possibility of causing suffocation if the oxygen feed is inadequate. The flow is regulated so that the bag is not quite emptied at the end of inspiration. A nurse should be in attendance to see that the bag and flow meter are functioning properly. Cyanosis is first to disappear, even though considerable dyspnea may still be present. After a few hours it will be noted that six to nine liters per minute will be used. As improvement occurs the patient will be able to manage a mixture containing more oxygen. Later the mixture may be used only at P.R.N. intervals. Helium having been used where the response to general therapy and aminophyllin was unsatisfactory, will usually break the vicious cycle and restore the effectiveness of epinephrin. This may take anywhere from two to twenty-four hours.

Should these measures fail, we may now resort to one of several methods of narcosis. Even in the days of Hyde Salter chloroform and ether were used to interrupt an attack. Maytum¹⁰ and Kahn¹¹ have reported on results using ether and olive oil in equal proportions per rectum. Maytum recommends one ounce of the mixture to 20 pounds of weight, given slowly to avoid cramping and expulsion. Kahn says 20 minutes should be taken in administering the mixture using a glass syringe and rubber tubing, or a funnel and tubing, depending on gravity to carry the mixture to the bowel. No cleansing enema is given. The patient will lapse into a stupor for various lengths of time from two to twelve hours. The dyspnea may continue; however, rest will have been afforded and the subcutaneous use of epinephrin may now be found to be effective. Fuchs¹² reporting on five cases, used avertin 50 to 70 mg. per kilo, which is slightly under the surgical dose. It is given slowly, using a male catheter. Muscular sedation was obtained in 10 to 20 minutes unless absorption was delayed or the patient had been too greatly stimulated previously. A slight drop in blood pressure was noted and subsidence of labored breathing induced. Meyer and Shotz¹³ report similar results with cyclopropane.

The effects of morphine whose use in asthma was second only to adrenalin has come under closer scrutiny. The feeling among allergists as a group is that it should be avoided. There are notable exceptions, such as Peshkin,¹⁴ Lamson,¹⁵ Kahn¹⁶ and Maytum.¹⁷ When hard pressed, most men will, from time to time, use it with trepidation. I am including it in the list of drugs to be used. The frequent observation that the patient died and that morphine had been administered is not sufficient to condemn it. No doubt death was ascribed to morphine in some cases of severe status where death was inevitable. In many instances large and frequent doses of morphine have been given, even to the point where the respiratory rate was depressed to six per minute without a fatal issue. Cases where death seemed imminent improved immediately after the injection of morphine where improvement could be ascribed only to the influence of this drug¹⁸. Pharmacologically, in doses above one-fourth grain, morphine depresses the cough reflex, depresses the respiratory center and has a peripheral constricting action on the bronchial musculature. On the other hand, in doses of one-eighth grain and less, it is sedative, affords rest and has a dilating action on the bronchial muscle.¹⁹ On the whole, great caution should be employed when using morphine in status asthmaticus; yet our eyes should not be closed to its advantages, when used in doses of one-eighth grain and less at intervals not to exceed four hours.

Kahn,²⁰ in six of eleven cases, relieved attacks by the use of two to four minims of 1 to 1000 epinephrin intravenously diluted in 1 cc. of normal saline. Tuft²¹ used one-half cc. of 1 to 1000 epinephrin intravenously with beneficial effects. This should be given slowly. Headache, extreme pallor and perhaps nausea and vomiting will be induced. If the reaction is too violent, the injection should be stopped. This is heroic treatment for a patient weary and on the verge of exhaustion. It must be kept in mind as a procedure to be tried with reluctance.

Up to this point we have tried to indicate an orderly and optimum routine in procedure and choice of drugs. Whiskey, the oxygen tent, stramonium and potassium nitrate, and tincture of benzoin inhalations, by themselves have shown little effectiveness in this condition, and even when used as adjuncts are of questionable value. Bronchoscopy and the administration oropharyngeally of vaporized epinephrin and neosynephrin have not had sufficient clinical application for a proper valuation. By definition, status asthmaticus is refractory to epinephrin and its employment should be dropped temporarily, as it only distresses and exhausts a very sick patient. From time to time, after the severity of the symptoms seems to abate, either from medi-

cation or in the natural course of the attack, epinephrin may again be used to determine whether it is effective. Atropine is mentioned for condemnation. In its usual dosage we have seen no relaxation of dyspnea and its drying effect increases the tenacity of mucous. This tends toward more effective plugging. We must again mention morphine, but this time as definitely dangerous medication when used in one-fourth grain or larger doses. The use of sodium amytal intravenously has been followed by immediate death and is therefore to be avoided.²¹

In closing I wish to epitomize a plan of treatment for status asthmaticus which will include a chronological employment of drugs and procedures most apt to control the extreme dyspnea in the shortest possible time. By the phrase "control of dyspnea" is meant either absolute control or rendering the patient sensitive to the subcutaneous administration of epinephrin. It is readily understood that no absolute program is possible, and that attendant circumstances and the condition of the patient will still necessitate considerable individualization. The program may be abandoned at the point where the patient responds to epinephrin by subcutaneous administration. With this in mind, given a patient in status asthmaticus, the following program might be employed:

1. Hospitalization in a room as allergen-free as possible;
2. General therapy;
 - a. Urge fluids with emphasis on glucose solution intravenously or subcutaneously.
 - b. Liquid to light diet.
 - c. Inert emulsion to aid evacuation.
 - d. Saturated solution of potassium iodide 15 to 20 minims t. i. d.
3. Aminophyllin grains $3\frac{3}{4}$ to $7\frac{1}{2}$ intravenously P. R. N.
4. Helium and oxygen mixture by inhalation;
5. Narcosis;
 - a. Ether and oil per rectum.
 - b. Avertin per rectum.
 - c. Cyclopropane by inhalation.
6. Epinephrin (1 to 1000) 2-4 minims in 1 cc. saline intravenously;
7. Morphine sulphate grains one-eighth or less not exceeding q 4 h;
8. Atropine, intravenous sodium amytal and M.S. one-fourth grain or greater are contraindicated.

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Deficiency States and Their Treatment

The maintenance of health in the human organism and, in fact, the continuation of life itself depend on a continuous supply of certain substances other than fuel which the body cannot manufacture for itself. The lack of one or more of these substances in the diet or the development of any condition which interferes with their normal absorption or utilization produces certain characteristic symptoms which are more or less specific for the missing substance in question. The growth of knowledge in this field of medicine is one of the great scientific accomplishments of our time.

In the north central states, primary vitamin deficiencies appear under three sets of circumstances: first, among individuals whose diet is grossly inadequate, chiefly elderly and eccentric persons; second, among the economically handicapped; and third, among those on special diets for various diseases. If alcoholism is added to this picture, the probability of deficiency diseases is greatly increased, because more non-vitamin-containing calories are added to the diet.

Vitamin deficiencies are common in association with various types of chronic disease of the gastro-intestinal tract. Relatively little attention has been paid to this fact and most of these conditions are neglected and untreated.

In the postoperative state, deficiencies of thiamin chloride, nicotinic acid, Vitamin C and Vitamin K may develop. Prompt recognition and treatment of these postoperative deficiency states are essential for the proper treatment of the patients.—Albert M. Snell, M.D., Rochester, Minn.; Jr. Iowa State Med. Society, Vol. XXX, No. 8, August, 1940.

Potassium Chloride in Hay-Fever and Other Allergies; a Personal Study of Ninety-Seven Cases

DAVID LOUIS ENGELSHER, M.D.

AN article written by Benson Bloom, M.D., which appeared in the *Journal of the American Medical Association*,¹ extolled the virtues of potassium chloride in hay-fever and other allergies. The striking benefits reported by him, were based on a report of 29 cases. Shortly thereafter, radio and newspaper featured the "new discovery", and strong dramatizations were evident in lay magazines.

In a communication published by *The Journal of the A.M.A.*, in its issue of September 2, 1939,² I stated, that my findings at the 64th case of an independent investigation, showed results strikingly different from that reported by Benson Bloom. Not only were most cases not relieved, but many had untoward reactions, and, that more relief was obtained from acid acetyl salicylic, in the non-aspirin sensitive cases. This, I believe, was the first widespread published caution to the medical profession. Articles have been appearing since then,^{3,4,5} substantiating my opinion of the inefficacy of this drug in allergy.

PROCEDURE

The study was commenced in March, 1939, because, in New York City, at that time, tree pollination commences. Each patient was given 10 tablets of potassium chloride, grams five (0.32 GM) with instructions to take one tablet three times a day, with or dissolved in a tumbler (240 c.c.) of water. Children were directed to receive one-half tablet well diluted.

The allergy conditions included all forms of pollinosis, nasal polyposis, perennial rhinitis, sinusitis, asthma, bronchitis, eczema, urticaria, and angio-neurotic edema. The causes of these disorders were from pollens, dusts, epidermals, foods, bacteria, physical allergy, singly or in various combinations. Ages ranged from nine years to 75, and both sexes were almost of equal frequency. The patients did not know what medicament they were receiving, and were told to report the effects at the next visits, or if these appointments were beyond one week, then to inform me by mail or telephone.

RESULTS AND CONCLUSIONS

In the use of new remedies, caution must be the watchword. Much harm may be done, and has been done in the past, by premature over-enthusiasm. Too readily, the laity and profession are inspired to use and recommend, preparations, which have not had a long enough period of

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corroboration. Potassium chloride in allergic conditions, was tested through a moderately large group of cases, who were intimately watched over a period of several months, careful records made, and the effects compared. This resulted in the following conclusions: (1) In hay-fever and other allergies, potassium chloride is of limited value. (2) It produces many side reactions, some of them extremely uncomfortable. (3) It is decidedly less effective than acid acetyl-salicylic (in non-aspirin sensitive cases) or ephedrine plus phenobarbital in alleviating the discomforts of allergic conditions, and the initial enthusiasm for its use is apparently unwarranted.

CHART SUMMARIZING PERSONAL STUDY OF POTASSIUM CHLORIDE IN HAY-FEVER AND OTHER ALLERGIES

Number of cases studied	Ninety-seven
Ages	Nine to seventy-five
Sex	About evenly represented
Types of Allergies	Tree, Grass, Weed Pollinosis, Perennial Rhinitis, Asthma, Bronchitis, Eczema, Urticaria, Angio-neurotic Edema, Sinusitis, Nasal Polyposis.
Causes of Allergies	Dusts, Pollens, Epidermal, Foods, Bacteria, Physical Allergy singly or in various combinations.
Dates of Study	March, 1939, to October, 1939
Untoward Reactions and Percentage	Abdominal pain, Nausea, Vomiting, Weakness, Chilliness, Asthma, Dizziness, Backache, Chest pain, Tachycardia. One of the foregoing occurred in approximately thirty percent of the cases
Comparison with Aspirin in Non-Aspirin Sensitive Cases.	Aspirin three times as effective
Comparison with Ephedrine and Pheno-barbital Combination	Ephedrine and Pheno-barbital combination four times as effective
Results	Poor
Conclusion	Enthusiasm for Potassium Chloride in Allergy unwarranted.

Submitted June 1, 1940.
References omitted because of space, will appear in Reprints.

Aphthous Stomatitis

J. HAROLD KING, M.D.

LAST year I saw six patients with migraine who, besides their headaches, complained bitterly of recurring canker sores. Two of these patients were men and had typical migraine since childhood. We were able to eliminate the headaches in the men by prescribing egg-free diets. The canker sores, however, persisted in one patient. In two of the female patients, menstruation seemed to aggravate the canker sores and also the headaches. We are all aware that canker sores have been thought of by some men as being manifestations of food allergy. Prompted by the foregoing experience, I reviewed the literature on aphthous stomatitis. There are four theories regarding the cause of canker sores:

- (1) Herpes virus theory
- (2) Allergic theory
- (3) Avitaminosis theory
- (4) Infectious theory

The evidence seems to favor the herpes virus theory: that aphthous stomatitis is really a herpetic stomatitis. More work should be done, however, to check this theory; namely, the inoculation of material from human aphthae into the cornea of a rabbit or into the noses of young mice. This has been done, but the reports are contradictory.

The allergic theory is based on flimsy data. These are merely case reports of recurrent aphthae, following the ingestion of chocolate, nuts and oatmeal. The pathologic nature of the mouth lesion would lead one to surmise that if the cause is allergic, it is by way of contact rather than absorption through the lower gastrointestinal tract. The reason for this is that early in the disease, aphthae are real vesicles, not wheals.

The avitaminosis theory is based on a few cases observed in 1923 by Gerstenberger. He treated these cases with brewer's yeast (which was free of vitamin C) and obtained remissions. At the present time some workers use vitamin C instead of vitamin B and get good results.

The infectious theory (other than herpes virus) is based on smears and cultures made from the aphthae during the ulcer state. Some workers find diplococci and others streptococci. These may have been secondary invaders.

The clinical characteristics of aphthous stomatitis are as follows:

(1) Occurs most frequently in children and young adults. In children, constitutional symptoms accompany the disease, but never in adults.

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- (2) Attack may be precipitated by:
 - (a) Eating chocolate or nuts.
 - (b) Menstruation.
 - (c) Trauma to oral mucous membrane, (particularly following dental prophylaxis).
 - (d) An acute infectious disease.
- (3) Aphthae are discrete or grouped papulovesicles on sides or tip of the tongue or on the lip or on the buccal mucous membrane. The vesicles rupture to form shallow painful ulcers. A gastrointestinal disturbance usually accompanies the ulcer stage. We should differentiate these recurrent painful aphthae from the acute vesicular form with itching, swelling and abdominal pain.
- (4) The disease has a course of from four to twelve days which is not altered much by treatment.
- (5) Recurrences are common, particularly in adults. Seasonal occurrence is found in some cases; much like duodenal ulcer.

The suggested treatments are:

- (1) Silver nitrate (10 percent or stick) to the ulcer.
- (2) Liquid or soft food during ulcerative state. (Avoid trauma to oral mucous membrane).
- (3) Vitamin C (Cevitamic acid).
- (4) One worker gives calcium phosphate.

We must be careful in evaluating any mode of treatment for aphthae, because the disease has a short span and ends "by crisis" when it ends. The critical end of the attack suggests an active immunization. The immunity is short-lived in most cases because of the frequency of recurrence.

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Clinical Gout

FREDERICK S. COOMBS, M.D.

GOUT is an ancient disease having been described as far back as the fifth century B.C. in the writings of Hippocrates¹. It is not uncommon to find it described in lay writings down through the centuries, especially in biographical literature². At the beginning of the present century, however, gout was considered by physicians in this country to have disappeared. The disease during previous centuries was commonly thought to be due to intemperate habits of food and drink and considered more common in the classes of leisure. Indeed such is still the general concept by many laymen and physicians. These ideas cannot be disregarded entirely, but it is becoming apparent that habits of food and imbibition may be only secondary factors.

ETIOLOGICAL FACTORS

Gout was first identified with a disturbance of purine metabolism when Garrod³ found an increased concentration of urate* in the blood of gouty patients. This finding is still confirmed and has been amplified⁴; the explanation however is unsolved. Garrod and Scudamore⁵ observed a positive family history in a high per cent of gouty patients. In our series we found a tendency toward a positive family history. The genetics of gout have not been completely investigated. Scudamore, however, found that the father was afflicted in 87 per cent of the cases who appeared to inherit the disease. We may add some confirmation to this by adding that we have seen only three cases of gout in females out of a total of about 85 cases. The preponderance of males has been explained by their greater frequency of dietary and alcoholic indiscretions. Possibly a better explanation is that gout is a sex-linked character.

Two years ago Talbott and Coombs⁶ reported an elevated serum urate concentration in 14 persons who were members of families of patients with gout. All 14 were without joint symptoms. Since that time additions have been made to the series. The data suggest that gout is an inherited metabolic dyscrasia in which an elevated serum urate concentration occurs from birth. Whether joint symptoms result may be due to environmental factors.

Read before the Section on Medicine, Ohio State Medical Association, Ninety-Fourth Annual Meeting, Cincinnati, May 14-16, 1940.

The author is indebted to Dr. John H. Talbott of the Massachusetts General Hospital, Boston, Massachusetts, for helpful criticism and for permission to use data accumulated while the author was associated with him.

*The term is preferable to uric acid in a consideration of acid-base equilibrium of biological media just as chloride is preferable to hydrochloric acid and phosphate is preferable to phosphoric acid.

The Author

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What environmental factors are associated with gout? Textbooks refer to excessive consumption of food and alcohol. Such excesses may be considered as traumata to the body and undeniably may provoke attacks of gout. In several patients we have noticed a specificity for certain alcoholic beverages to produce attacks of acute gout. P. Fa., a 68 year old Italian barber, related that Scotch whiskey would promote an attack in 24 hours. Wine did not afflict him. G. Re., a 33 year old attorney, has noticed the same relationship to gin, while Scotch or Rye whiskey, beer, or wine did not disturb him.

Fatigue or exposure to the elements may be considered inciting factors. A. Cas., a 67 year old French-Canadian farmer, noticed that several of his attacks of gout followed days of harvesting, ending in a rain storm in which he was drenched. A surgical operation, whether it is a major or minor procedure, usually is sufficient to incite an attack. It is conceivable that serious medical diseases as lobar pneumonia or coronary thrombosis with severe pain may be inciting agents.

Recently Talbott and Coombs⁷ have reported a correlation of acute attacks of gout with atmospheric changes. They were able to show that gout cycles consist of a fall in barometric pressure, a cessation of sweating, and a diuresis. Attacks of gout follow such a sequence.

The exact pathogenesis of acute gout, however, remains unexplained. That there is some participating factor seems likely since many joints with large deposits of urate remain quiescent until an exciting agent is present.

It is generally accepted that gouty joints contain urate deposits, presumably because of the high concentration in the blood. It is of interest to consider the causes of this increased urate. They have been listed as follows:

- (1) Failure of excretion.
- (2) Increased production.
- (3) Decreased destruction.

Failure of excretion of urate presupposes kidney damage. Studies⁸ of renal function in gouty

patients does not show any striking diminution in renal functions peculiar to gout. Studies of urate excretion^{8,9} indicate that gouty patients eliminate urate as efficiently as non-gouty subjects. Indeed when kidney damage increases, urate excretion is relatively enhanced in relation to glomerular filtration. The mechanism for the excretion of urate by the kidney has been elucidated and confirms Cushny's theory¹⁰. Thus serum urate is filtered through the renal glomerulus, but approximately 90 per cent of this is reabsorbed by the renal tubule. As tubular damage occurs there is a tendency for less urate to be reabsorbed and thus a larger portion of the filtrate reaches the bladder. The increased amount of urate found in the urine of gouty patients with normal kidneys is the result of a larger amount passing through the glomerulus because of a higher concentration in the serum.

As yet there is no choice between the theories of decreased destruction or increased production to explain the high concentration of urate in the blood. Brugsch¹¹ reported that gouty patients show a diminished destruction of urate, while Folin¹² demonstrated that injected uric acid disappeared as rapidly from gouty subjects as from controls.

Likewise post mortem studies indicate that the deposition of urate in the kidney does not interfere with glomerular function. The urate deposits are in the interstitial tissue. However urate crystals in the renal calices or pelves may give rise to calculi and result in kidney damage from obstruction.

DIAGNOSTIC CRITERIA

The diagnosis of gout has been emphasized by Hench¹³. We should make the first prerequisite for the diagnosis of gout that the physician be gout conscious and think of that possibility when examining a patient with rheumatism. The other criteria are as follows:

1. Typical history.
2. Elevated concentration of serum urate.
3. Isolation of urate crystals from a suspected tophus.
4. Roentgen findings.
5. Response to colchicine.

A typical history of gout may present a subject at any age—the onset in our series varying from six to 72 years of age. The patient is most likely to be a male. Sometimes a positive history of antecedent environmental factors such as an alcoholic debauch, a Thanksgiving dinner, or exposure to the elements in the form of wet, cold, or fatigue may be obtained. The joints which may be affected vary. Podagra or classical gout in the big toe is not always present in the early years of the disease. Recently we have seen three patients with gout who have had multiple attacks without ever having podagra.

Most commonly gout starts in the lower extremities. Weight bearing may be an exciting factor here. However, gout may occur first in the upper extremities. When gout occurs in a small joint it is classical, but when it occurs in a larger joint the appearance may be deceiving. Two joints which offer a good comparison are the metatarsal-phalangeal joint of the great toe and the knee. In the former occurs sharp knife-like pain, redness, swelling, and heat, followed by a shiny appearance of the skin. The knee, however, may or may not become red, may have only moderate pain and heat, but has a fairly large effusion. Untreated gout disappears in a few days and the patient notices that he has no residual joint symptoms. This latter is an important diagnostic criterion.

To recapitulate: the classical history is that of a patient having intermittent attacks of acute rheumatism, characterized usually by redness, swelling, heat and sharp pain, a serum urate above 6.0 mgm. per 100 cc., and who is entirely symptom free in a few days with no joint residual, probably has gout.

The elevated urate concentration in the serum was recognized only recently⁴. Previously urate determinations were done on whole blood. This was very unsatisfactory since the values for the normal level could not be established. Talbott and Sherman¹⁴ have explained this by demonstrating that more urate is present in serum than in red blood cells. They also found that urate shifts from red cells to serum when blood is exposed to low tensions of carbon-dioxide as is present in the atmosphere. This predicates that the most accurate serum urate determinations are those performed on blood taken under oil. Jacobson has found that the normal serum urate is under 6.0 mgm. per 100 cc. with values over 6.0 mgm. definitely abnormal. However, one must not rely on a chemical determination alone to make the diagnosis. Occasionally we have seen patients with a serum urate concentration of over 6.0 mgm. per 100 cc. whose rheumatism was of some other type than gout.

Isolation of the needle-like urate crystals is possible if a patient has a draining tophus or a tophus on the ear. Examination of such is to be commended whenever possible.

Roentgen examination should be carried out in all cases of rheumatism. Early in the disease X-rays are negative. Usually gout is characterized by punched-out areas in the bone. However, this phenomenon is not exclusive with gout and has been observed in rheumatoid (atrophic) and hypertrophic arthritides. In late gout typical pictures are generally seen because enough time has elapsed for the deposition of sodium urate.

The last criterion in the diagnosis of gout is the therapeutic response to colchicine. More will be said later on the use of colchicine, but it is to

be noted here that other forms of rheumatism do not respond to colchicine, while gout does when the drug is given in sufficient amounts.

Clinically gout is to be confused with rheumatoid, gonorrheal, and hypertrophic arthritis, acute rheumatic fever, and localized infections. Gout is to be differentiated from these by the history, clinical course, and by determination of the serum urate. Patients with acute gout may have fever ranging from 100° to 105°F. though the latter is unusual. The sedimentation rate does not offer any aid since it also is rapid in gout. In patients who have repeated attacks of gout, the findings of external tophi and the roentgen picture are definite aids to diagnosis.

COMPLICATIONS

The complications of gout may be listed as:

- (1) Bony Ankylosis.
- (2) Mechanical interference with the movement of joints from urate deposits.
- (3) Renal Calculi.
- (4) Arterio-sclerosis.
- (5) Renal Insufficiency.
- (6) Infection from incision and drainage.

Bony ankylosis may occur in gout especially in smaller joints of the phalanges, but usually only after numerous attacks.

Mechanical interference with the movement of joints is a frequent complication because of the deposition of sodium urate. This is particularly true in the feet where large urate deposits about the toes, dorsum of the foot, and around the os calcis will interfere with the wearing of a shoe and make walking painful. Tophi about the hands may interfere with motion. These tophi, if not too extensive, may be removed surgically. Such a procedure requires much skill and is not to be recommended except in the hands of well trained operators.

The deposition of urate in the renal calices and pelves may give rise to calculi. These are generally non-opaque to roentgen rays. This fact may at times suggest the type of calculus present. Small urate stones may be passed. Larger ones cause obstructive symptoms.

The presence of arterio-sclerosis in patients with gout has been observed on numerous occasions^{15,16}. A correlation between gout and arterio-sclerosis has not been proven except for their coincidental occurrence. It may be well to add here that gout may not interfere with longevity since we have seen four patients with gout over 80 years of age.

Renal insufficiency is encountered occasionally in gout. The cases in our series which have been studied following post-mortem examinations show that vascular disease plays a major role in kidney failure.

As has been pointed out previously herein, gout often presents all the signs and symptoms of an

acute inflammation, namely—heat, redness, swelling, and pain. When such a process has been repeated by many attacks of gout a collection of urate, called a tophus, is formed. A tophus may at times feel fluctuant. Surgically minded physicians, not recognizing gout, have felt the urge to relieve such conditions with incision and drainage. We have recently seen a patient with gout who was subjected to such a procedure five years ago. The area became infected and resulted in amputation of the foot. A gouty tophus will generally rupture spontaneously and drain cheesy material—not pus. It rarely becomes infected if allowed to follow the natural course of events.

TREATMENT

What diet shall we prescribe for the patient with gout? Numerous ideas on this subject have appeared in the literature, varying from low fat-high carbohydrate, to low protein diets. Figures¹⁷ to show decreased urinary excretion of urate following ketogenic diets are without question. The resulting acidosis from a ketogenic diet does increase serum urate¹⁸. We contend that such proportions of fat to carbohydrate rarely occur in the ordinary diet. A low protein diet is difficult to justify in any condition. We believe a sensible diet in which the patient's nutrition is maintained is to be preferred. Obese patients with gout should be made to reduce. Obviously it is wise to have patients with gout avoid foods with a high purine content such as liver and sweetbreads.

What types of medication shall we use for gout? For the early relief of pain with an acute attack morphine may be used. After this there are three drugs which have been considered: namely, salicylates, cinchophen, and colchicine.

Salicylates are used widely in all types of rheumatism. They may be used in gout, but have little specific effect.

The use of cinchophen has been advocated by Hench¹⁹ in the treatment of gout. It may be well here to identify the various products which contain cinchophen or its derivatives. They are neocinchophen, atophan, neotophan, tolysin, and neotolysin. Cinchophen and its derivatives cause an increased excretion of urate in the urine and a subsequent lowering of the serum urate. We have never been able to ascribe any beneficial effect to this phenomenon. While it is not denied that cinchophen is beneficial for the relief of gout, it is not without danger in that it has been known to cause severe liver damage²⁰ in the form of sub-acute or acute yellow atrophy. We have refrained from the use of cinchophen in routine treatment of gout.

We prefer to use colchicine, the active material found in wine of colchicum. As we have pointed out previously⁷ much of this drug's ill repute in the past has been due to small dosage and to the type of preparation which was used—the wine of colchicum. This is an effective preparation when

fresh, but is not stable and deteriorates when standing. A stable preparation is now available in tablet form as the pure alkaloid colchicine*. We have found that doses of 1/120 grain every 1½ hours until diarrhea occurs gives relief from acute gout. The number of pills required in such a program varies for different patients. It may be as low as eight or as high as 19. The diarrhea is treated with tinctura opii camphorata in drachm doses every four hours, or five to eight minims of tincture of opium at the same time intervals.

As a rule local applications to the affected joints are not necessary. Sometimes moist heat after the acute symptoms have subsided make the patient more comfortable.

SUMMARY

The concept that the gouty diathesis may be an inherited one has been presented. Obviously environmental factors may be influencing agents. The diagnostic criteria in gout are enumerated and comments on treatment and complications have been made.

275 W. Federal St.

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*Colchicine was kindly furnished us by Abbott Laboratories.

Infections Following Trauma

Those of us who are doing our daily rounds of traumatic surgery cannot fail to be impressed by the epigrammatic words of surgical wisdom as can be presented only by one who has had years of experience on the battleground of infection, as Dr. Wetherell.

Many of his axioms are well worthy of repetition:

1. "Proper debridement and careful suturing, which does not choke tissues, are the only means at our disposal that will allow primary healing and, incidentally, prevent infection."
2. "The best antiseptic is blood circulating in its vessels."
3. "Strong antiseptics applied to open wounds are worse than useless."
4. "Soaking and sulfanilamide will never replace an early free incision in the treatment of an infection."
5. "The most frequent error we see is incision of reticular lymphangitis."
6. "Long soaking of infected wounds is bad treatment."
7. "The newer antiseptics may prove valuable adjuncts; yet, if they do, it will still be inexcusable to perform careless primary surgery."

The red storm-warning flag of lymphangitis is always a favorable omen, as it indicates a superficial infection only, rarely eventuates seriously, and only rarely requires surgery.

Serious surgical consideration and the intelligent application of surgical principles are required in those infections that are not associated with lymphangitis or lymphadenitis.

We hear too much, perhaps, about some of the miracles of the newer antiseptics that, indeed, are valueless unless they are used in conjunction with fundamental surgical principles.

When, however, men in the various fields of specialties acclaim the value of some of these newer antiseptics, it behooves us to accept their value as an added tool of surgical procedure.

The ear men tell me, "sulfanilamide is killing my mastoid practice"—the genitourinary men are lamenting a seven-day gonorrhea—the internist is rewriting his chapter on pneumonia therapy. It behooves the industrial surgeon to apply these experiences to his own problems.

I have had experience with an old composite section 27A-type osteomyelitis of the ankle, progressing nowhere after eight or nine sequestrectomies following an original compound fracture at the ankle, which began to show what one might term alarming signs of healing by the administration of a 60-grain daily intake of sulfanilamide. Within two days with a moderately soaked purulent dressing it became entirely serous. Within a week the discharge was limited to a small sinus with the large ulcer showing healthy granulation tissue for the first time.

Before the administration of a new antiseptic, it is imperative that all rational surgical principles be applied, and, conversely, it is becoming a form of surgical negligence not to add this additional tool as an aid in the severe forms of infection.—H. Van Ness Spaulding, M.D., New York City; *N. Y. S. Jr. of Med.*, Vol. 40, No. 14, July 15, 1940.

Shock Treatment In Schizophrenic and Affective Psychoses

D. A. JOHNSTON, M.D.

MANY and varied have been the therapeutic efforts toward the amelioration of the various affective disorders. Physiotherapy by the continuous bath, packs or stimulating hydrotherapy, chemical and endocrine (estrogenic substances, antuitrin, testicular and pituitary hormones), fever therapy, benzedrene sulphate in the depressed and fatigue states, hematoporphyrin in the depressions. The prolonged narcosis method has been used in both the manic and depressed phases but the results cannot be said to be constant. Insulin by the usual shock procedure or by sub-shock doses in the manic phases. The former method may produce some temporary benefit during the period of the hypoglycemia but has not modified the psychosis. The sub-shock insulin method has succeeded in some cases of mania in lessening the psychomotor activity and so permitting the patient to be more easily cared for while hospitalized but has no apparent effect on the psychosis.

This paper is a short, statistical report on the use of metrazol in the treatment of 45 completed cases, 33 of which were in the affective group and 12 in the schizophrenic. Incidentally 18 completed cases of schizophrenia treated by insulin or insulin and metrazol are recorded.

Compared with this series of 33 metrazol treated affective psychoses are 50 affective psychoses treated by the usual conventional methods previous to the introduction of metrazol. All of these cases were hospital treated. No attempt will be made to discuss technique or theories of action.

In the affective disorders, especially the involutional states, we are treating an older group than we do in schizophrenia. It is probably best to use as few shocks as possible in this older involutional and pre-senile group because of permanent cerebral damage. The treatment however has proved quite safe in those over 45. Dr. W. D. Wright reports in 40 depressed cases (ages 45 to 68) that no permanent changes occurred from the original electro-cardiographic pattern following metrazol "shock" therapy. Naturally complications may be more prevalent in this involutional group but the severity of suffering in this type may justify the risk to shorten the course of the illness.

Treatment should be continued and given every other day or three times a week. If improvement is shown in a week or even sooner treatment may be discontinued for a few days until the amnesia

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or post-metrazol confusion has cleared up and the patient closely observed to estimate the symptomatic results. If there is evidence of the return of symptoms follow with two or three more injections after which another rest period for inventory. Feel along in this manner and end the treatment when the patient displays insight, is free of his former depression and agitation, can more or less discuss his problems and shows a normal animation and feeling of wellbeing. Occasionally patients may drift into an elated mental state following improvement. Eight to ten convulsions should produce a favorable result (our series averaged 6.7 paroxysms). As most cases show improvement after a few injections treatment may be discontinued after 15 attacks if no improvement is apparent. More injections are necessary in the treatment of schizophrenia by this metrazol method.

From a mortality standpoint, the metrazol method may be considered less dangerous than insulin but the complications are more frequent making this procedure a hazardous one requiring thorough explanation to the family. The more frequently encountered complications are dislocation of the jaw and shoulder (this was our only complication in this reported group in 346 major reactions but since this have had one fracture of greater tuberosity of the humerus), fractures of the humerus and compression fractures of the vertebrae. (Two of our patients had worn braces for sacro-iliac). Predisposing pathological conditions of the bone may produce tendency to fracture. Clinically the patient may complain of backache, fatigue, difficulty with memory, amnesia, personality changes and difficulty in recalling names after a number of treatments. Normal mental efficiency is often not equalled for four to eight hours after injections. It is theorized that organic changes produced by the confusional state of the convulsion may account for the favorable

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45 COMPLETED CASES TREATED WITH METRAZOL. REC. 22 = 48.8%

Metrazol Alone	Metrazol & Insulin	No. Injections	Dur. Prior Ad.	Hosp. Res.
Affective Group 33 Rec. 18 = 54.5% Schizophrenia 6 Rec. 2 = 33%	Schizophrenia 6 Rec. 2 = 33%	Total for 45 cases 377 injections given in hospital, 297 of which were major—103 additional injections given after discharge, making total of 480 injections received by the 45 cases	Of 18 Rec. Affective Cases 7 plus mo. AGE Oldest 56 Youngest 21 Ave. age 40.6	Ave. length treatment for 18 Rec. Affective Cases 14 plus days
		In 18 Rec. of Affective Group	18 Rec. Affective F — 10 M — 8	Shortest treatment 4 d. longest 2 mo. 14 d.
		121 injections Major 107 Ave. 6.72 inj. Ave. 5.83 Major		
		Largest No. treat. 14 smallest 2		

First case treated May 10, 1938

All cases reported have been discharged 4 mo. or more.

18 COMPLETED CASES TREATED WITH INSULIN. REC. 8 = 44%

Insulin Alone	Metrazol & Insulin	
Schizophrenia 11 Rec. 5 = 45.4% 1 case had additional 50 injections Insulin after discharge	Schizophrenia 7 Rec. 3 = 42.8% 1 case 21 Metrazol before admission 3 cases total 103 Metrazol after discharge with 154 Insulin Injections	One case had 21 metrazol injections before admission to hospital. Three cases had 35—60—8 Metrazol injections after discharge from hospital—Total injections 103. Four cases had 74—40—40—50 Insulin treatments after discharge—Total 204

REC. 15 = 30%—50 AFFECTIVE PSYCHOSES TREATED PREVIOUS TO INTRODUCTION METRAZOL

	Age	Dur. Prior Ad.	Hosp. Res.
Several known to have recovered after left hospital. Financial reasons prohibit sufficient private Hospitalization for Recovery Four known suicides in this group	Oldest 67 yrs. Youngest 30 Ave. age 46 plus years	Ave. 4 plus mo.	Ave. 58 d.

therapeutic results. Whether there are organic changes in the brain is still a debated question not substantiated by necropsy or experiment.

Many measures have been suggested for the prevention of fracture complications. Bennett has used spinal anesthesia, and more recently has been experimenting successfully with the use of curare to produce flaccid generalized motor paresis. Hyoscine one hour before injection of metrazol has been found useful in the very disturbed and resistive patients. Paraldehyde is also used by some workers. We have used sub-shock doses of insulin previous to injecting the metrazol. Under these methods, larger doses of metrazol are not necessary. Hypoglycemia shock may be produced first, giving metrazol at the onset of coma followed by intravenous glucose. Hyper-

extension of the spine, reducing arc at first contraction (placing rolled blanket between shoulder blades) and mechanical pressure by assistants over shoulders and hips. Persistent back pain undoubtedly is the result of spinal fractures. X-ray discloses cupping of bodies of vertebrae. These apparently have very little effect on the patient's recovery.

The matter of duration prior to illness has not the importance in these affective psychoses as it has in the schizophrenic and the rate of recovery is not dependent on duration of attack. Possibly the least success is apparent in those cases displaying a pronounced anxiety or having compulsive features.

The pronounced benefit seen in the difficult nursing problems warrants trying metrazol in

most cases of stupor regardless of duration. Frequently these stuporous cases react very well. Excellent results have been attained in the involuntional group (ch. midlife stupor states) and few depressions are uninfluenced by treatment. Metrazol definitely shortens the duration of the depressive psychosis and is the method of choice in treating these problems at this time. It is not as effective in treating the schizophrenic as is insulin but is frequently an excellent adjunct.

It is well to remember that metrazol disappears rapidly from the circulation when given intravenously and is a physiological antidote for barbiturate and opium poisoning. It is a stimulant to the circulation and respiration by its action on medullary nuclei. Being antagonized by sedatives, especially the barbiturate group, these drugs used the night before will frequently prevent a convulsive seizure or produce an unsatisfactory reaction, (few convulsive twitchings) resulting in much anxiety, fear or psychomotor excitement. This situation results also from doses below the convulsive dose. Improvement, however, may sometimes follow but the painful impressions and fear cause considerable resistance to further treatment.

Our experience in the treatment of the manic phase has been in accord with that of Karnosh and coworkers who are of the opinion that treatment in the early course is not effective. The patient may become somewhat less active and more quiet but the excitement reappears. If metrazol is used later in the manic when the illness has more or less run its course, the duration may be shortened.

It has been noted in our series that several of the schizophrenic patients did not show the fear reactions more common to the affective group. Several insisted on putting the mouth piece in their mouth and otherwise preparing themselves, (possibly due to the lowered emotional level, loss of initiative and "feeling tone" of the schizoid). Practically all of the affective group, (especially those who had experienced unsatisfactory reactions) displayed some fear or would plead with us to wait or not give the treatment.

In several cases various evidence of the regression to infantile states was observed such as thumb sucking and the assumption of intra-uterine positions in the post convulsive state.

In those recovered schizophrenic cases treated by metrazol alone, there were evident residuals in conduct and conversation hardly perceptible to the family and friends but quite obvious to the psychiatrist. Some of these may be considered peculiar or "funny" by a few observers but the patients are quite acceptable among their friends and have made a very satisfactory social adaptation.

Treatments by these shock methods should be restricted to those having experience in this pro-

cedure and to psychiatric hospitals. The frequency of spinal fractures is reason also to confine this procedure to the more serious psychotic states. The many problems and difficulties encountered in caring for the manic patient, the potential suicide of the depressed and their mental torture and suffering may justify any procedure to shorten the course. Criticism has been directed to the fact that a large per cent of this affective class recover spontaneously and that the dangers (fractures, death, etc.) of such severe treatment may not be justified.

It is our practice to retain the patient for two weeks' observation after the last treatment and to instruct the family to keep in contact with their family physician to detect any changes in personality or conduct that may warrant further occasional treatments. One should be acquainted with the patient's home and work environment, his personal and situational problems in an effort to properly assist in his permanent readjustment. Follow up psychotherapy of an educational character is not only important for the patient but equally so for the family, friends and even the family physician.

In closing let us stress the importance of individualization in both metrazol and insulin treated patients. Each case should be carefully observed and studied before the method of treatment is determined. Each individual is different and a case unto itself, especially the difficult ones that do not respond. Psychotherapy and personal attention is essential to completeness of treatment and should be continuous as soon as the patient responds to metrazol or insulin. The personnel assigned to the treatment of these patients is also quite important. They should be trained not only in technique and observation but have a definite understanding of the psychological requirements in the interim between treatments. It is not wise nor sound policy to treat indiscriminately all schizophrenia by insulin or metrazol or all affective psychoses by metrazol. There are many cases which do better without treatment, making spontaneous recovery or at least do no better with insulin or metrazol. This is all a matter of personal judgment derived from experience and observing the patient a sufficient length of time.

CONCLUSION

1. Forty-five completed cases treated by metrazol are presented, 33 in the affective group and 12 in the schizophrenic; 18 completed cases of schizophrenia treated by insulin or combined with metrazol are reported. All cases discharged four months or more.

2. Comparison made with 50 affective psychotic cases treated by methods previous to the introduction of metrazol.

3. Tables and percentages showing results attained. In the 45 cases, 22 or 48.8 per cent recovered. In the affective series of 33, 18 or 54.5

per cent recovered. Average length of treatment for 18 recovered, affective cases was 14 plus days with an average of 6.7 injections per patient.

Of the 50 affective psychoses in the second group not treated by metrazol, 15 or 30 per cent recovered with an average hospital residence of 58 days.

4. There is no prescribed number of metrazol treatments. This must be entirely determined by observing results and gradually reducing treatments.

5. Discussion of complications and measures for prevention.

6. Least success in marked anxieties or those with compulsive features. Excellent results in the involutional group. Few depressive states fail to respond favorably to some degree. Metrazol definitely shortens the duration of the depressive disorders.

7. In the manic, best results probably secured by using metrazol later in the course of the illness and shortening the duration.

8. This shock method of therapy should be restricted to psychiatric hospitals or departments and used only by those having experience. Well chosen and trained personnel is necessary.

9. Individualization should be practiced and each case carefully observed and studied before instituting treatment. Psychotherapy, personal attention and follow up contact essential to the best results.

10. It is unwise to indiscriminately treat all schizophrenic or affective disorders by these forms of therapy. Many cases will make more satisfactory progress without treatment and recover spontaneously and are not improved by insulin or metrazol.

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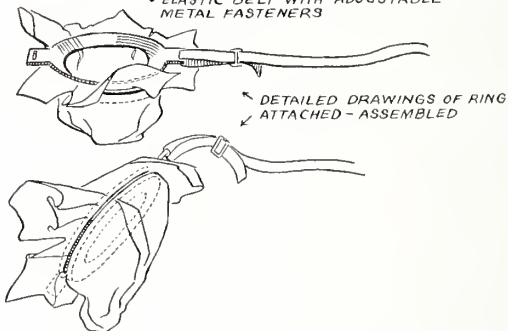
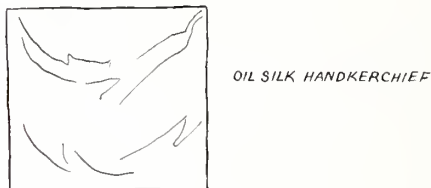
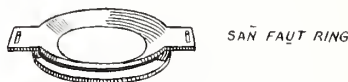
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A New Colostomy Bag

Several years ago a patient of mine was forced to become a colostomy victim. She rebelled at the use of our ordinary colostomy bags. The size, the odor, and everything about the bags was like a nightmare to her.

A friend at this time developed an ingenious device which has since proved satisfactory in every way. It consists of a funnel-shaped, flanged soft rubber ring which forms a slight suction and over which fits an oiled silk handkerchief. The handkerchief is securely fastened to the ring by means of a rubber band which snaps over the flange. At opposite points on the ring are slotted lips which are hooked to the narrow elastic belt. The handkerchiefs are disposable.

IN ORDER OF ASSEMBLING



This contrivance is about as dainty as a thing like that could be, which is a great help to the patient mentally. Among its other features are the following: There is little rubber, there is naturally no odor, the weight is negligible, and the patient is not constantly conscious of having something on. Many other colostomy bags have a large heavy belt that must be worn tightly around the waist to hold them up. The belt of this device is to keep it in place and need not be annoyingly tight, which adds to the patient's comfort.

One of its best points is that it does not show under ordinary clothing, and the patient can, therefore, dress and look as before. There are no seams, crevices, or stitching, making it difficult to clean, and the knowledge of utter cleanliness is important to these patients. And, lastly, it is so simply constructed that patients can care for themselves in a very short time. It has been patented and will shortly be available commercially.—W. G. Clagett, M.D., Dayton, Ohio.

Etiological Factor In Peptic Ulcer

GLENN S. LAMKIN, M.D.

THE cause of peptic ulcer has long been a disputed subject. There have been many hypotheses advanced to clarify the etiological factors in this elusive condition.

An early belief was that circulatory disturbances in the veins and arterioles of the submucosa resulted finally in regions of necrosis of the mucous membrane; peptic action of the gastric juice then would cause ulceration.

A second explanation designated duodenal and gastric ulcer as an inflammatory process, with destruction starting from the surface of the mucous membrane and gradually spreading out into the deeper layers. Some expressed the belief that certain organisms, with selective affinity for certain tissues, were the caustic factors underlying such lesions in the stomach and duodenum.

Sippy and many others have pointed out the eroding action of abnormally acid gastric juice in the production and persistence of gastroduodenal ulceration.

The fourth and recently more accepted belief is that derangement in the nervous system is the most significant factor in the genesis of peptic ulcer. According to the advocates of this hypotheses, such lesions are the result of disturbed function in the sympathetic and parasympathetic nervous systems. This causes localized spasmophilia of the gastric or duodenal, musculature with consequent regions of mucosal ischemia. Because of this regional impoverishment of blood supply, there is a diminished resistance in localized portions and mucosal erosion results. Continuous nervous irritability would tend to produce a chronic lesion. Singer has been more definite and has designated hyperirritability of or actual neuritis of the vagus apparatus as the specific cause of peptic ulcer.

Certain types of persons seem especially prone to the development of ulcer. This has led to the assumption that definite anatomic or physiologic factors are demonstrable, which add to the liability for the formation of ulcers in certain persons. Those who see many patients with peptic ulcer soon notice that certain patients seem predestined for persistent recurrence of ulceration, despite the most carefully planned medical or surgical efforts toward cure. The intermittency of the syndrome of ulcer suggests factors of fluctuating importance. Rivers³ states that it is conceivable that influences of neurogenic origin which seem capable of influencing periodic reactivation of ulcer, and which can prevent the healing of such lesions, and which

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at times produce an ulcer-like syndrome, may be of some importance in establishing a local chemical and spasmophilic gastroduodenal condition favorable to the development of ulcer. He further says that somewhere within the mechanism which influences the sympathetic and parasympathetic control of the upper part of the gastro-intestinal tract is a wealth of information which will need to be thoroughly understood before the final analysis of the condition of ulcer will be possible.

With the above in mind it was decided to search for some key or trigger mechanism to account for this abnormal functioning of the nervous system. In the course of routine eye refractions it was observed that certain patients who complained of symptoms comparable to peptic ulcer were relieved upon correction of error of refraction. Feeling that there might be some significance to this observation it was decided to explore this line of investigation in patients with peptic ulcer or ulcer-like syndrome who had no complaints referable to the eyes. Twenty-five of these patients were refracted with drops even though the vision was 20/20 and there were no symptoms of eye strain. Many of these patients had been proved by X-ray to have peptic ulcer, and the others were typical clinic pictures of this syndrome. The remarkable result of this investigation was that all of these patients had errors of refraction which when corrected gave complete relief of their symptoms. It was further observed that patients having complaints at the actual time of refraction were relieved after complete cycloplegic effect of the homatropine and that this relief lasted for 24 to 48 hours and then usually returned to be subsequently alleviated upon wearing glasses to correct error of refraction.

This seemed to indicate that the key or trigger mechanism was the ciliary muscle. To secure added proof of this pilocarpine was used in the eye to keep the ciliary muscle stimulated in several of the above patients. This procedure caused a return of their symptoms.

One is led to conclude that in certain individuals spasm or stimulation of the ciliary mus-

cle of the eye in some way affects the sympathetic and parasympathetic nervous system which in turn produces the changes in the gastrointestinal tract that cause peptic ulcer or ulcer-like syndrome. Further investigation along this line may be of value in other conditions involving disturbances of the functional nervous system.

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A Surgical Procedure in Treatment of Ophthalmia Neonatorum

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In spite of the care given the eyes of the newborn in the way of prophylaxis by the obstetrician, occasionally there will crop up a case of gonorrhea ophthalmia. At this point usually an ophthalmologist is called in to care for the eyes of these little folk. When it does occur, it requires immediate and constant medical and nursing care to save these eyes. The social aspect to the individual is naturally the most important, but other aspects of the case are important such as family and state. The Health Department of our state recognizes it as evidenced by the fact that they will pay the nursing expense, as they have embraced the policy that it is cheaper to pay for getting an individual's eyes well than otherwise might be blinded and have to be educated at the expense of taxpayers of the State.

Etiology—This is caused by the gonococcus, and the infection occurs in the passage of the eyes through a vagina infected by the gonococcus.

Pathology—The eyelids in these infected cases are extremely edematous and red. It is very hard to evert the lids and requires great skill to do this, much more than the average nurse possesses, even an experienced trained eye nurse. Since the exudate forms so fast and contains pure cultures of gonococci, it is very necessary that a very thorough irrigation be done nearly every hour to wash out the infection to keep ahead of the disease. Since we know as oculists, the cornea of the eyes is very tough and resistant to disease, it will withstand only a certain amount of punishment, providing the corneal epithelium remains unbroken.

Now, the problem is to take off all the pressure from the cornea, as all the eyes lost in this disease is from pressure necrosis, i.e., the pressure of the edematous lids holding in the rapidly expanding infected exudate that bathes the cornea. The rugae lining the inside of the lids

consisting of conjunctiva is very red and swollen and helps hide and trap the infection, and, of course, the multiplication of the gonococci organism is very rapid. Hence, good and frequent irrigation and medication is very necessary to get a complete cure.

Diagnosis—This type of infection is easily recognized by oculists. The definite diagnosis, of course, is laboratory examination of a smear. Nurses who are hospital trained or in training are carefully taught to quickly notify the attending obstetrician upon the first appearance in any newborn with any kind of secretion coming from an eye. Many of these newborn eyes are red and have some exudate and are so due to the fact that some eyes are susceptible to the prophylaxis of silver nitrate instilled in eyes at birth as required by law.

But the typical gonorrheal infection of newborn eyes is easily diagnosed due to the redness and edema of lids and excessive amount of pussy exudate being expelled from between the lids. This diagnosis is confirmed by the laboratory examination.

Surgical and Medical Treatment—Since the problem of irrigation is paramount and difficult, due to tension of the lids on the eyeball and knowing anatomically that the orbicularis oculi muscle is the strongest in the body for its size and reasonably well developed in the infant at birth, and since this is a problem of pressure on the eyeball and cornea in particular, I reasoned and performed this slight surgical procedure. A pair of blunt ended, very sharp scissors was extended carefully between the lids at their junction at the outer canthus, and cutting deep and far enough with a straight cutting scissors, the skin and orbicularis oculi muscle at this point. Then a black silk suture was placed in each severed half of the incision. A knot was tied reasonably secure, leaving a length of some four inches long. Now, after this is done, the irrigation can easily be done well up in the fornix of each eye, aided by traction on the sutures. Since the muscle is severed, the lids are easily raised as the power of the muscle is held in abeyance, besides relieving the pressure on the globe.

After the disease is cured and sutures removed, the cut edges fall naturally together and the small fine resulting scar, if any at all, is hidden in the natural wrinkles at this point, giving a fine cosmetic result. Luckily for all of us, there is a dearth of these cases. I think in the last 18 years I have seen a total of five newborn eyes with this disease, and have seen one adult with it. I do not believe it is safe in the light of present day knowledge to use sulfanilamide in these newborn babies, but with the above drug I am sure it would be very useful for any of these adult cases.

Case Report of Gangrene of the Hand Due to Neoarsphenamine Injection

L. H. NEWMAN, M.D., and H. D. GILES, M.D.

AMONG the many accidents incident to the treatment of syphilis with neoarsphenamine certainly gangrene of the extremities is one of the most rare. The following case is interesting for two reasons: first, no case on record seems to simulate it; and second, it emphasizes that attention to the most detailed accuracy of technique in intravenous medication is paramount.

Of the cases found in literature four are worthy of comment. A case reported by Dr. L. A. Sutter¹ concerns the intravenous injection of arsphenamine and a subsequent arterial type of gangrene of the fingers of the same hand. Two cases are reported by Oddo and Gerand² from the use of neoarsphenamine the clinical pictures of which resembled Raynaud's Disease. In both cases the condition of an arterial type of gangrene was brought on by an intravenous injection of arsenic. Schloffer³ reports another case of a similar type of gangrene from the use of arsphenamine.

CASE REPORT

A single male auto driver, five and one-half feet high, weight 140 pounds, 19 years old was admitted to surgical service on April 15, complaining of a severe pain in left hand and forearm. The fingers of that hand were crisp, wrinkled and dried. Onset April 7 following injection of neoarsphenamine, with severe pain in tips of fingers, chill and malaise. He had a chancre on the penis two years before for which six injections were taken. Following a second penile sore five weeks before admission his Wassermann was positive and a second series of neoarsphenamines begun. The second injection of this series marked the onset of symptoms and signs which led to his admission to the hospital eight days later. He felt shooting pains coursing in the left arm and forearm immediately after the needle was removed. The next day the left hand and arm were swollen, extremely painful, sensation and motion diminished in all fingers of the left hand. On admission the left hand showed typical dry gangrene, line of demarcation two inches above wrist joint, the forearm swollen, hot and painful, the arm not affected.

General physical examination showed no evident pathology about head and chest. The inguinal glands were slightly enlarged on both sides. On the ventral aspect of the corona and adjacent to the frenum was a typical chancre. There was an old scar on dorsum of penis about two inches proximal to corona. Both lower extremities and right upper appeared normal. B.P. 100/75. Blood cell counts were normal. Urine examination was negative. Wassermann was four plus.

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Three days after admission the arm was amputated at junction of lower and middle thirds of humerus by rectangular flap method. Three days after the operation the patient was allowed up. Uneventful recovery resulted in discharge from the hospital April 30, wound in good condition. No neoarsphenamine medication given while he was in the hospital.

PATHOLOGY

Operative specimen was the left upper extremity severed at junction of lower and middle one third of the humerus. The hand was edematous and swollen. The fingers were shriveled, dry and blackened. The line of demarcation was about two inches above the wrist joint and circular. The forearm was inflamed and enlarged, just short of anti-cubital fossa. The lower third of arm appeared normal.

A median longitudinal incision through the skin and superficial fascia was made to extend along the anterior surface from anti-cubital fossa down to the digital notch between the second and third fingers. The skin and superficial fascia were carefully dissected laterally and well onto the posterior aspect of forearm and hand. By lateral incisions the skin and palmar fascia were dissected from the superficial palmar arch. The superficial veins were examined for obstructions but none were found. They were partially collapsed in the upper part of the extremity, but were distended throughout the dorsal surface of the hand with dark unclotted blood. There was no evidence of inflammatory changes in the anti-cubital fossa. The brachial artery was identified passing just beneath the bicipital fascia between pronator radii teres internally and supinator longus externally and brachialis anticus posteriorly.

only. The muscles of the anterior aspect of forearm were dissected free and their tendons divided so as to expose the brachial artery and its three main branches. The brachial artery was collapsed appearing about normal in size, texture, color and no gross perivascular inflammatory changes noted. The arterectomy had occurred distal to the profunda and anastomatic branches. The bifurcation of the brachial artery was normal in position just below the bend of the elbow and opposite the neck of radius. Similar were the normal relations of ulnar and interosseous branches. The radial, ulnar and interosseous arteries were carefully dissected free with respective vena comites. Each vessel was completely occluded in the sagittal plane at the junction of the upper with the middle one third of the forearm. These occlusions were from two to three inches long in each artery. The superficial and deep palmar arches were dissected and contained in parts some unclotted blood while in other parts they were collapsed. The subcutaneous tissues of the back of the hand were markedly edematous and the superficial veins congested with unclotted blood. No other evident gross pathology noted.

HISTOLOGY

The specimen presented for section consisted of a solid cylinder about 6 mm. in diameter and one centimeter long. The preparation was fixed by usual methods preparatory to tissue section. The external coat appeared slightly congested and a moderate round-cell perivascular infiltration present. The media appeared normal. The intima was torn away from the normal position at two places. At these sites it was intimately mixed and fastened to a mass of partially degenerated red blood cells and fibrin threads. The lumen of the vessel was almost completely filled with this clotted blood made compact with a finely granular material through which were scattered few fibrinous masses. The torn away intima appeared as if it had been pulled away by the clotted obstruction which had contracted sufficiently for such separation to have resulted.

DISCUSSION

We have not been able to arrive at a cause for the pathology in the case. Oddo and Geraud offer a flocculation theory and resulting embolism as a possible cause for their case. Schloffer offers the idea of spastic arterial contraction as a possible cause for his.

If we admit of the possibility that the neoarsphenamine was given intra-arterially, i.e., the brachial artery, in our case might indulge in some speculations.

1. The drug might have been acid in reaction causing clotting and a subsequent lodging of the fragments in the branches of the brachial artery.

2. Arterial blood may react slightly different to neoarsphenamine than venous blood.

3. An increasing concentration of arsenic may have caused an endarteritis obliterans.

All of these possibilities are based on an insecure premise as there is nothing in our case or anything in the literature to our knowledge to absolutely support any of them.

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Carcinoma of the Stomach

Gastric analysis has been a much neglected procedure. We do realize that an occasional case of cancer of the stomach is found when the gastric analysis shows hyper chlorhydria and that many old people have achlorhydria without having cancer of the stomach, but the great majority of our cases of carcinoma of the stomach have complete achlorhydria after histamine stimulation, or at least have marked hypochlorhydria.

Histamine stimulation (histamine injected subcutaneously) has been criticised as being unphysiologic, but a true achlorhydria cannot be said to exist unless histamine is used. When histamine was used in 1 mgm. doses, reactions (headache, flushing and palpitation) were frequent. In the past three years, in our clinic, we have used only doses of 0.5 mgm. of histamine and have had infrequent reactions with this dosage. Histamine is not used in patients who might suffer harm from a possible reaction. In these patients 50 c.c. of 7 per cent alcohol is used as a test meal.

The Guaiac test for occult blood in the stool is a simple test, easily and quickly performed, and should be done in any and all patients with gastro-intestinal symptoms. If the test be positive (in the absence of hemorrhoids) it is very helpful. Unfortunately it is not a very sensitive test and, therefore, many patients with carcinoma of the stomach may have a negative stool guaiac test unless the test is performed repeatedly. The Benzidine test for occult blood in the stools is much too sensitive for practical routine use, since it is necessary to keep the patient on a meat free diet for two to three days in order to avoid a false positive test. A test for occult blood, intermediate in sensitivity between the Guaiac and Benzidine tests, would be very helpful.—John C. Leonard, M.D., New Haven: *The Conn. State Med. Jr.*, Vol. IV, No. 8, August, 1940.

Management of Hemorrhage in Pregnancy

RALPH K. RAMSAYER, M.D.

THE management of hemorrhage in pregnancy is of most urgent and vital concern to every general practitioner and obstetric specialist. In any given case this problem must be successfully solved or death ensues, for no patient can long endure the loss of her life blood.

Obstetrical hemorrhages are understood to be those which arise from some etiological cause, definitely associated with pregnancy, parturition or the puerperium. Obviously, there may be hemorrhages from various unrelated conditions, such as vascular disease, tuberculosis, benign or malignant neoplasms, etc., which are purely incidental to pregnancy and not characteristic of it.

Hemorrhages in the first half of pregnancy usually arise from such conditions as abortion, ectopic gestation and hydatidiform mole; in the last half, from placenta previa and ablatio (abruptio) placentae; during labor, from complete or marginal placenta previa, partial or complete premature placental separation and ruptured uterus; postpartum, from uterine atony, injury, and uterine inversion. Postpartum hemorrhages may occur during or immediately following the third stage, as already mentioned, or may appear hours or weeks later during the puerperium, because of failure of the uterus to remain properly contracted, or retained secundines, placental fragments, or late subinvolution.

With this preliminary survey, the proposition of management or treatment is our problem of discussion.

Obstetric bleeding can be conveniently classified as external visible, and internal concealed. The first, or external type, is at the beginning symptomless, i. e., the patient experiences no pain, no weakness, no feeling of impending suffocation, no syncope—just the appearance of blood, which usually does not excite her a great deal. Seldom is the first loss of blood serious except as a warning signal. Gravity develops comparatively slowly.

Precisely the opposite is true with concealed hemorrhage either of intrauterine or of intra-abdominal origin. Here the outstanding symptom is abdominal pain, weakness and early prostration. Thus it is imperative for us to early rec-

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ognize the general character of the case and initiate precautionary if not active treatment.

At this point I want to suggest that no two patients have the same bleeding reaction to any given condition—that each is endowed with certain inherent and acquired characteristics which determine to a certain degree the amount of hemorrhage as well as the patient's resultant condition. Specifically I refer to the type of patient who with little blood loss or fatigue goes into unexplained shock, as compared with the one who with heavy blood loss sustains her condition well.

VISIBLE EXTERNAL HEMORRHAGE

Now, in the first instance, let us consider the relative hemorrhage importance of conditions giving rise to external bleeding. Three stand out above all others; i. e., abortion, placenta previa, and inversion of the uterus. These are common complications and any one may give cause for quick death. Others such as cervical or uterine polyps, fibroids, cervical carcinoma, erosions, ulcerations, and vulvular varicosities practically never give rise to serious bleeding and their management may be implied in the discussion of serious bleeding.

As we all recognize, it is our fundamental duty to first control hemorrhage at the earliest possible moment; and at the same time replace that blood loss with whatever amount is necessary. It is now my purpose to discuss with you the several methods of procedure which offer the patient and the baby the greatest security.

ABORTION

Abortions usually begin with slight bleeding, but at any moment may become profuse, which signifies that it is inevitable and the uterus must be curetted. Oxytocics and packing are supplementary aids to the operation but cannot be

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depended upon solely. The crux of this situation is to operate early, quickly, and to replace lost blood before surgical shock ensues. It is recognized as not being fair or safe to the patient to just hope or palliate along, taking for granted that she will clean herself, for we all know that even after we believe the uterus to be empty we can still find considerable amounts of secundines if we curette. These not only serve as bases for bleeding, but also for infection, subinvolution, and sterility.

PLACENTA PREVIA

The more serious problem of placenta previa implores our best judgment. Hemorrhage, sepsis, and rupture of the lower uterine segment—the chief causes of death in placenta previa—are largely preventable. These deaths occur chiefly because patients delay summoning medical aid, and because many physicians are not fully aware of the potential gravity of bleeding in the third trimester, and are therefore unprepared to cope with the emergency. Placenta previa is an obstetric complication for which home management is not safe: even a careful vaginal examination may produce furious bleeding. Immediate transportation to the hospital, even from long distances, is indicated as soon as any marked bleeding occurs before examination is made. Approximately 50 per cent of all painless genital bleeding in the last few months of pregnancy is due to placenta previa. The actual diagnosis can be made only when the spongy, cushiony mass of the low lying placenta is palpated on physical examination. If digital examination is inconclusive a bivalve speculum may be inserted to aid in the differential diagnosis of other causes of painless bleeding such as erosion, varicosities, polyps, and malignant neoplasms.

Rectal examination is of less value and more dangerous than vaginal examination. No vaginal examination, however gentle, should be made unless under a strictly aseptic technique, and not until:

1. Acceptable donors for the blood transfusion are present,
2. The patient is surgically prepared, and
3. Every provision has been made for the control of the bleeding and for the immediate termination of the pregnancy.

If there has been a heavy blood loss a blood transfusion should be given before diagnostic or therapeutic measures are begun. There is no expectant treatment in placenta previa. It is necessary for one to decide if he is dealing with placenta centralis or marginalis. If placenta centralis and the patient a primipara, it is considered the best judgment to proceed with cesarean section; if multiparous, and the cervix thick and rigid, the same procedure is indicated.

However, in some instances of high parity where the cervix is soft and patulous, it may be expedient to manually dilate the cervix and quickly deliver the baby by version and breech extraction. In the case of placenta marginalis in the primipara, with a hard fibrous cervix, cesarean section is the method of procedure. However, occasionally there may be a soft patulous cervix in which rupture of the membrane will allow the head to act as a dilating pressure wedge, thus controlling the hemorrhage and inciting labor. Rupture of the membrane for 24 to 36 hours duration, is not a contra-indication to section. In the multipara with marginal placenta, rupture of the membranes is the method of choice. In cases where more pressure on the marginal placenta is desired, scalp traction and breech traction by use of Willet's clamp may be used. Braxton-Hicks' version and vaginal tamponade are not recommended.

POSTPARTUM HEMORRHAGE

Postpartum exsanguination is infrequent but always dangerous. Its cause may be uterine or extrauterine. Uterine atony, or the inability of the uterus to maintain sufficient tonicity to control the bleeding is probably the most common cause. Contributing to uterine atony is the gradual exhaustion and paresis of the uterine muscle itself due to long hard labors and overstretching, as in cases of large babies or hydramnios, or improper conduct of the third stage such as partial separation of the placenta, or retained fragments of placenta or cotyledons, preventing closing of the blood sinuses. Analgesia and anesthesia definitely increase the incidence of uterine atony. Extra-uterine bleeding is due to severe trauma of the soft structures and tears in the cervix and lower uterine segments.

With the proper management of this third stage most serious hemorrhages will be prevented. In our last series of 3000 cases since 1937 at Mercy Hospital, Canton, analgesia and anesthesia have been used more sparingly, and at the beginning of the third stage the condition of the fundus is closely observed by the palpating hand. At the moment the placenta is separated and in the cervix one-half of a 1/320 gr. ampule of ergotrate is injected intravenously. As the uterus receives this stimulation the placenta is gradually pushed out, and the remaining ergotrate is injected intramuscularly. An ice bag is immediately placed upon the fundus. If there is any indication of uterine relaxation or atony, manual abdominal massage is applied to the fundus, and subsequent small intramuscular or intravenous injections of ergotrate may be given. All repair work on cervix or perineum should be done quickly and with as little anesthesia as possible. If the labor has been long and exhausting, fluid loss should be immediately restored.

by saline intravenously. In case of hemorrhage, immediate blood transfusion should be given and repeated if necessary, together with vigilant stimulation of the fundus by abdominal massage, ice bags and oxytocics and elevation of foot of table.

Efforts must be made immediately to improve the general condition of the patient so as to prevent shock. Oxygen inhalations relieve the depth of the anesthesia and improve the tone of the uterine musculature.

Replacement of blood by transfusion is no doubt our most valued therapeutic agent in the saving of life. This should be done early and in adequate amounts, varying from 500 to 600 cc. of citrated blood. If there is any delay in the transfusion, the patient's condition should be supported by intravenous saline and acacia solution. If the hemorrhage continues, repeated blood transfusions must be given with no limit to number—sometimes amounting to 3,000 cc. in 24 hours. The source of the bleeding must be carefully investigated and speculum examination of the cervix and vagina may be necessary, as well as manual examination of the fundus for remaining placenta or cotyledons which are not evident on examination of the expelled placenta. Packing of the uterus has nearly been discarded but certainly there are still selected cases in which it may be the only means of controlling a seemingly hopeless hemorrhage.

EVERSION OF THE UTERUS

Eversion (inversion) of the uterus is a rare occurrence, and is a most serious postpartum complication, especially when the condition is not diagnosed promptly, for the patient may rapidly sink into profound shock and die in a few hours. The cause of this condition is a relaxation of the fundus usually at the placental site together with a relaxed lower uterine segment. The inversion may occur from untimely traction on the cord or excessive pressure from above. With this original dimpling of the fundus eversion takes place in peristaltic fashion. The presence of hemorrhage with an unpalpable fundus should always be interpreted as indicative of uterine eversion, and vaginal examination should be made immediately.

If eversion proves to be the case, continuous positive pressure on the presenting part will cause replacement in a high per cent of cases but will be ineffective if much time is lost. Two methods of control are left: first, pressure tamponade; and second, tourniquet applied high about the protruding inverted fundus. Supportive treatment to the patient should be carried out as in any other serious blood loss. Operative procedures are indicated only after the patient has recovered from her shock and exsanguination.

CONCEALED INTERNAL HEMORRHAGE

The group of obstetrical hemorrhages often referred to as concealed or invisible include the complications known as ablatio placentae or premature separation, ectopic pregnancy, and ruptured uterus. The symptoms of this group as a whole appear earlier and are more vicious than those of the visible external type. They are characterized by pain, syncope, and shock.

ABLATIO PLACENTAE

Ablatio placentae occurring in the third trimester of pregnancy, is manifested by sudden abdominal pain associated with a large, rigid, tender uterus, having in some instances a particular nodular consistency. Diagnosis is made from these symptoms together with evidence of developing shock and anemia, fetal distress or absence of fetal heart tones, and by abdominal and pelvic examination.

The treatment of this condition is either expectant or operative. When seen early and if there has been little blood loss, either visible or concealed, the expectant treatment is preferable. In this instance, labor should be promoted as rapidly and safely as possible; membranes should be ruptured artificially, and fractional repeated doses of pituitrin given to initiate labor. Usually these patients deliver rapidly and otherwise uneventfully, as the blood loss is not beyond the ordinary margin of safety. However, if contractions can not be started and there is no progress of labor, the concealed hemorrhage is usually large, the uterus is fixed, immotile, and of the Couvelaire type, in which case cesarean section is indicated.

Should the patient be admitted in shock, as is often the case, active treatment must be temporarily deferred and supportive measures initiated. Morphine, together with glucose and saline venoclysis, is immediately expedient. The salt solution should be limited because of its harmful effect on the toxemia which in a majority of cases is present. Here again blood transfusion should be given quickly and in sufficient amount to offset the loss of blood.

Cesarean section is indicated as soon as her condition warrants. The porrotype of section may be indicated if uterine apoplexy is too extensive.

ECTOPIC PREGNANCY

Ectopic pregnancy from a hemorrhagic viewpoint is dangerous only when bleeding is instituted at the time of rupture. As we all know, many rupture without appreciable blood loss and often go undiagnosed. If hemorrhagic, the same symptoms of pain, syncope, and shock are present to a greater or less degree depending upon the size of blood vessels involved.

The symptoms of amenorrhea of one or more months duration associated with spotting, and recurring menstrual-like pains in the lower abdominal quadrant, of the side involved, are usually present prior to rupture. Diagnosis of rupture is made with a history of a knifelike stabbing pelvic pain associated with syncope, and upon pelvic examination, definite fullness, tenderness, and rigidity may be found on the affected side. A blood count and hemoglobin will determine the amount of hemorrhage although one should be aware of a concentrated condition of the blood. If the hemorrhage is not vicious, it is well to wait a number of hours or days until the patient has recovered from her initial collapse symptoms. In this discussion we include all kinds of ecyesis: i.e., cornual, tubal, ovarian and abdominal.

With the patient in the best possible condition, laparotomy is indicated. The extent of the operative procedure should be limited to the emergency work to be done for by and large, the mortality is greatest in those cases in which surgical procedures, other than those immediately indicated, are performed.

In vicious cases where hemorrhage and shock is serious, supportive treatment of venoclyses and liberal blood transfusions should be instituted followed by laparotomy with ligation or tamponade of the bleeding site. This is the one place where auto-blood transfusions are indicated and thus save the patient's own valuable blood. The technique of this is briefly as follows:

The unclotted blood from the abdominal cavity is sucked into an Erlenmeyer flask, containing sodium citrate. As the process continues the suction tube is occasionally washed out with citrate solution, and the blood in the flask is admixed in a gentle rotary fashion. Often 1,000 to 2,000 cc. of blood is obtainable in this manner. This blood is then strained through gauze into a Kelly flask which has already been set up and is operating as a venoclysis. Thus it is not uncommon for the patient to have received a liberal auto-transfusion before leaving the operating room.

RUPTURED UTERUS

Ruptured uterus is an infrequent but serious complication of pregnancy and is invariably associated with severe hemorrhage and shock. When it does occur it is usually the result of a weak cesarian scar from a former pregnancy or from the improper conduct of labor, i.e., the use of an oxytocic at an ill advised time. Diagnosis is usually easy, since the baby can be palpated free in the abdomen. The same supportive measures as before are necessary, followed by rapid supracervical hysterectomy.

With these remarks on the relative importance or seriousness of the several types of obstetric hemorrhages, it is also essential to emphasize

the necessity for early diagnosis and consultation. We are all aware of the time required for hospitalization, laboratory work and reports, venoclysis, blood grouping and transfusions. Needless to say often much valuable time is lost in coordinating these different procedures. Most physicians are conscious of this time element and are aware of the necessity for prompt, efficient cooperation. We are likewise mindful of the laxity on the part of patients in not seeking medical advice early, or reporting bleeding or other abnormal symptoms as soon as they occur, either through ignorance, fear or indifference. It is important, therefore, that we advise our patients of such symptoms and emphasize the necessity for reporting their incidence. This should be supplemented by an instruction pamphlet enumerating the many essentials in prenatal care which should be read every month by the patient. Again emphasis is placed on the advisability of consultation. With the many difficulties of differential diagnosis and the improving methods of procedure no one can presume that his method is perfect and without fault. The Ohio Hospital Obstetric Society, of which many hospitals are members, strongly advocates the practice of frequent consultations in any abnormal obstetric procedure or complication. This society, only a few years old, reports an improved mortality rate. The establishment of hospital obstetrical societies in our several cities and localities has promoted a closer friendship and better understanding among contemporaries and colleagues to the end that the consultations become easy and desirable.

Finally, then, three fundamentals become the basis of management:

1. Early diagnosis and hospitalization is indispensable; competent consultation is recommended.

2. Immediately control the hemorrhage by recognized procedures as soon as condition of the patient permits.

3. Treat the acute anemia and shock (if present) quickly and adequately. Blood loss can be restored by fluids and liberal blood transfusions. It is usually expedient to start with venoclysis plus circulatory stimulants (adrenalin, caffeine, etc.) and follow with blood. The use of the "Blood Bank" under proper supervision is a valuable source of supply and I have actually seen it save impending fatalities. One should attempt to replace in fair degree the amount of blood lost, because a few hundred cc. will not suffice for the patient who has lost 2,000 or more. It is not unusual for patients to receive 1,000 to 3,000 cc. of blood during the successful fight to save their lives.

120 Tuscarawas St. W.

Examination of the Normal Child

GEORGE C. MALLEY, M.D.

IN spite of extensive propaganda during recent years for periodic physical examinations and health "check-ups", especially directed toward the health, growth, and development of the child, the majority of parents yet do not realize the value of careful guidance and advice from a competent physician in rearing their children. Insurance companies have frequently demonstrated the value of these procedures in a reduction in the mortality and morbidity rate of those examined, and as a result, a saving of time and money both to the insured and the insuree.

It has been amazing to me, since starting the practice of pediatrics the great number of mothers who, after I have taken a history and have laid the infant on the table for examination, will propound the question, "Do you want the baby undressed?" Immediately this suggests that the child has never had an examination before, or their family physician has prescribed without bothering to undress and examine him, often in spite of serious complaints. The physician who repeatedly practices this type of medicine certainly invites severe criticism, and too frequently works a detriment to the patient. While we all agree that probably a careful history is more valuable than a physical examination in most cases, still there is no time in life when a thorough check-up from head to foot, is more important than in infancy and childhood. With pediatric patients undoubtedly errors in diagnosis are made more often from not looking over a patient carefully, rather than from lack of medical knowledge.

MASS EXAMINATIONS

It is regrettable, that although the public is demanding the periodic examination more and more each year for their children, the family physician has all too frequently been reluctant to respond, often not seemingly appreciating its value. This attitude to an extent, has resulted in the establishing of baby welfare clinics, summer round-ups, school examinations in groups, which we know have done a great deal of good in raising the health standards. In short, the public is taking this problem in their own hands. It is time that we as practitioners should assume the initiative and do something along these lines. What benefits may come from mass examinations and group check-ups, can never take the place of the examination by an interested private physician. This fact was realized by the advisory committee

The Author

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for the summer round-up of the National Council of Parents and Teachers, when their policy changed to examinations in the office of the family doctor, being paid for by the parents whenever possible.

Histories and examinations done in great numbers, are necessarily too hasty, lack time for proper interviewing of parents, and do not give the patient the much needed individual attention. Often several physicians examine the same child or the follow-up may be made by a different doctor depriving the child of being treated as an individual, little knowledge being gained as to the mental make-up or the relationship between parent and child. Obvious defects and variations from normal are found, the correction of which undoubtedly benefits the child, but the more obscure problems, lesser troubles, poor hygiene, maladjustments, etc., need a much more intense investigation.

One must not overlook the importance of adequate pre-natal care, which is the duty of the obstetrician. Inherited weaknesses and constitutional tendencies cannot be changed but by proper attention to environment, and periodic examinations for the expectant mother, we may be able to alter them to the benefit of the child.

APPROACH TO CHILD IMPORTANT

Time does not permit a detailed discussion of the pediatric physical examination, but I shall attempt to stress the more important factors in ascertaining the status of the patient. Attention is paid to the infant and younger child because the examination of the older child does not differ to any great extent from that of the adult. Throughout this period most of the history is obtained from the parents, the patient being unable to speak for himself. The approach and technic of examinations is different, and much depends upon the qualification of the examiner. To be successful in the practice of pediatrics, one must not only have a thorough scientific background, but a keen power of observation, unlim-

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ited patience, and a natural love for children. Many physicians are born with some of these attributes, others obtain them through long experience, and to others, unfortunately, the art forever remains a mystery.

Before starting an examination the hands should be thoroughly washed and warmed for obvious reasons. An attempt should immediately be made to gain the confidence of the patient. Get down to the level of the child, forget being austere and dignified, and try to be a companion to him. Talk in a manner he understands and indulge in any antics you believe will enable you to gain your goal, (a quiet, cooperative patient who almost enjoys your presence). Such measures often accomplish wonders even with the most cantankerous boy or girl. If your best efforts fail proceed and do the best you can under the circumstances. Remember never become angry for no matter how unmanageable and rebellious a child may be they rarely are such in the eyes of the parent, for to "explode", and call the child a "brat", as so often happens only incurs the disfavor of the father and mother and condemns you as a failure. You are supposed to be able to handle such pediatric problems. Fortunately is the doctor who has raised a child of his own, for as an average he is familiar with the difficulties of the parents in dealing with a boy or girl who seemingly enjoys so called "negativism".

The older infant or young child is more efficiently examined if allowed to remain upon the mother's lap. He feels more secure and often will remain quiet when otherwise he would be rebellious. Frequently it is best to have the mother hold the child over her shoulder, and I have found this position best in palpating the abdomen, the thumbs being placed on the back, the fingers passing around the body from behind, the thighs being flexed on the abdomen by one of the mother's arms placed back of the knees. Not being able to see the examiner the child frequently will be very quiet. The examination may be started in this manner including the spine and back, auscultation and percussion of the posterior chest wall, examination of the buttocks, anus, etc. Some children are alarmed when entirely uncovered and a satisfactory palpation of the abdomen may be made under a blanket while lying on the back or in the aforementioned position. It must be remembered that the lower border of the liver is easily palpable, since in the first year it extends beyond the costal margin and even to the third or fourth years may be level with it. The spleen may be normally just palpable.

KNOW IN GENERAL AVERAGE VALUES

To deal successfully with the problems of childhood one must have some knowledge of the normal, the various relationships of the different

age periods, the physical and mental progress of the growing organism. Age, height and weight charts and other similar data in conjunction with a thorough examination should be helpful in singling out those who deviate from the normal, suggesting developmental defects, prematurity or disease. Such gauges are an aid likewise throughout childhood and adolescence. It is a well known fact that a child may be below the average in height and weight and still be well nourished, this type often seen in offspring of parents of small stature and small bony framework; others may measure up well according to average standards and still be malnourished, as a result of improper diet. These factors must be kept in mind in evaluating the individual case.

The physician need not keep multitudes of weights, measurements and average figures in conducting an examination, but a few general considerations are of value. The average normal infant at birth should weigh between 7 to 7½ pounds, being an average of five ounces lighter in primipara. During the first ten days he usually loses about 11 per cent of the body weight, about 300 grams, thought to be due to excretion of meconium and urine, removal of the vernix caseosa excretion by way of the skin and lungs, vomiting of allantoic fluid, metabolic changes, etc. The heavier the baby the greater the loss and slower the gain. This is known as the physiological weight loss, which should be recovered in about ten days. About 2 to 5 per cent of children are born underweight and the mortality at birth is 10 per cent greater in this group than normal and during the first year is four and one-half times as great. Infants born prematurely and some delicate ones require special care. A good index that special care is necessary is the weight and length. If the weight is less than 2500 grams (5½ pounds), or the body length less than 48 centimeters (19 inches), then they should receive special attention. Most twins born at term are in this group. During the first three months the baby should gain an average of 5 to 7 ounces per week; slightly less the second three; the third and fourth three month periods, about 3 to 4 ounces per week. There may be short periods during which the weight may remain stationary, but which ordinarily should occasion no alarm. The weight is usually doubled at five months and trebled at one year, and at five years double that at one year.

The average length at birth is 19½ to 20 inches. The rate of growth is one inch per month during the first six months; and one-half inch per month for the last half of the first year; for the second and third years about 3½ to 4 inches; and 2½ inches for the fourth and fifth years.

The index of nutrition is the gain in weight, weight having little effect upon the increase in

length. Retarded growth linearly is usually the result of disease or developmental defect rather than a poor nutritional state.

Muscle tone and tissue turgor are extremely important and by experience, one is often able to judge from palpation the condition of a child as a tailor ascertains the texture of a cloth by feeling it between his thumb and fingers.

The average head measures 13 to 14 inches at birth and the size of the head is often our best indication of what it contains. In proportion to the size of the body it is twice the size of the adult head. An abnormally small head may be the result of faulty pre-natal development or due to poor nourishment. A large head may suggest congenital hydrocephalus; after birth hydrocephalus may be the result of disease. Molding or cephalhematomata may produce transient deformities and later pressure on the skull bones may cause deformity, which usually disappears when stress is relieved. This latter condition is often seen when the infant lies too much in one position.

It is good to become accustomed to palpating the anterior fontanelle. Normally it is slightly depressed, but is somewhat tense during expiration when the infant is crying forcefully. With experience one can often detect evidence of beginning pressure within the calvarium from disease or new growth. In dehydration the fontanelle is sunken. It is tense in meningitis, slightly tense in congenital syphilis, and the tension is marked when the pressure is due to abscess or tumor. The anterior fontanelle increases gradually in size up to the ninth month, with the growth of the brain, and closes at about the eighteenth month, two years at the latest. Closure depends on brain growth and bone formation. The posterior fontanelle closes at two to four months and the laterals are closed at birth. Delay in closure may indicate increase in skull contents, occasionally there may be a normal delay.

In infancy no examination is complete unless the ears are examined with a good otoscope, after thoroughly removing the cerumen. The tympanae have a pink color compared with the adult, which is pearl gray and the canals are short and straight. The ears are often the seat of disease and they may explain the cause of many symptoms which would otherwise be overlooked.

The mouth is an important region to examine carefully. The mucous membrane appears more intensely red than in later life, in this area. The tonsils are smooth, round, and small at birth, and undergo rapid growth variable in different infants. Large babies, growing rapidly, usually show the larger tonsils and adenoids during the first two years of life. The superficial lymph nodes are not palpable in the healthy infant, al-

though, like the tonsils, they grow rapidly during the first 12 to 24 months.

The neck is short in proportion to the head and trunk. Unless there is pathology present there is little to note on examination.

The teeth should be of great interest to the physician, especially the soundness of calcification, the occurrence of aplasia or caries, proper spacing, well rounded arches, and any evidence of malocclusion. The time of eruption of the temporary teeth varies with the individual and with the physical condition. Disease also is a factor. Deciduous teeth are 20 in number, usually appearing in three groups. The first group consists of the eight incisors, the second, of the four canines and the four anterior molars, and the third, the four posterior molars. Symptoms are attributed to "teething" too often by the laity, and frequently by physicians without a careful search for some other cause. Clinically we occasionally see susceptible children who may run a moderate fever, appear to be restless and irritable, suffer with anorexia, salivate profusely, and have numerous other symptoms which may be attributed to difficult dentition, but a thorough "check-up" should always be made in every other area before suggesting to the parent that any unusual behavior is due to "teeth".

CHEST, HEART AND LUNGS

The chest measures 12 to 14 inches at birth, and until the third year it is smaller than the head. After the first year the average growth is one inch per year to the fifteenth year and the conformation gradually changes from barrel shape, the infantile type, to that of the normal adult, due to the change in the angle of the ribs with the vertebral column, from about 90 to 45 degrees in the adult.

Much can be learned from inspection of the chest. The respirations usually are abdominal in type, the rate varies from 30 to 60 per minute, depth and rhythm being often irregular. Various forms of dyspnea can be recognized: the labored shallow breathing of pneumonia, pericarditis, and pleurisy; deep forced respirations of intoxication; the retraction of the ribs in obstruction or stenoses. These observations with careful attention in comparing the excursion of both sides, may often suggest a probable diagnosis.

Percussion should be done lightly, for heavy percussion will vibrate the chest well. The resonance resembles somewhat the hyper-resonance of the adult chest, and has a somewhat tympanic note.

In auscultating the chest it is much better for the child to be crying, for the experienced examiner listens intently during the phase of deep inspiration, and is familiar with the rough puerile tone of normal breath sounds. They seem close to the ear. Vocal fremitus is difficult if not im-

possible to elicit in infants so one must rely upon bronchophony, which is more evident if the patient is crying. Increased bronchophony suggests infiltration. The familiar bronchial breathing of the adult is not apparent especially in expiration.

By palpating in the intercostal spaces the pulse beat of the heart can be felt, and by light percussion some knowledge can be gained as to its size. During the first years of life murmurs are usually of an organic origin, later the occurrence of accidental murmurs is great. In children irregularities in rhythm and frequency have not the serious significance they have later. During the first year the heart rate varies from 100 to 150, dropping to 90 to 125 by the end of the second year. The sounds are staccato-like, have a tick-tack rhythm, not unlike embryocardia.

I have never been able to demonstrate the thymus gland on physical examination and the average X-ray is not very definite in estimating its size. The thymus grows rapidly during the first year and like other lymph tissue seems to bear some relation to the size of the baby, being larger and growing more rapidly in those infants that show a more accelerated and greater body and weight gain. It is impossible to state what is enlargement and what is not as the size varies so greatly in different infants.

THE ABDOMEN

In addition to what I have said before regarding the abdomen, one must not forget the importance of inspection of this part of the body. Proper light is essential coming from a side light at the head or feet of the patient. Relaxation is important and this can often be accomplished by giving the infant the bottle during the examination. Normally the abdomen has a "pot-belly" appearance especially in the erect position and this is often a source of worry to anxious parents. The normal umbilicus may be flat with the surface, depressed deeply or show some protrusion.

MENTAL AND PHYSICAL DEVELOPMENT

After carefully estimating the growth up to any given period, one must ascertain the baby's mental and physical development.

At birth all movements are reflex and some are well developed such as the corneal, pupillary, abdominal, palmar, and plantar. Others develop later, such as the knee.

Muscle coordination first shows in the control of the head, which should be established at about four months. At the third or fourth months the baby is alert to noises, grasps objects and usually begins to sit up without support from the fifth to the ninth months. Gradually more is achieved, and from the sixth to the tenth months the infant may crawl, stand with support, later from the tenth to fifteenth

months standing alone, walking with support, is able to say single words and may feed himself. From the twelfth to the eighteenth months he begins to walk alone, says a few more words, and begins to have bowel and bladder control. From eighteen to twenty-four months he is able to walk well, runs, and is able to put several words together in short sentences or phrases.

There are wider variations with development than with growth, as the individual is influenced by a great many and varied factors. For instance some children walk late because they find it easier to get around by crawling rather than the unsteady gait of the first steps as a means of locomotion. Others may not talk because they received so much attention from parents that they haven't found speech necessary to make their wants known. Bowel and bladder control may depend upon how vigorously training has been prosecuted.

Any complete physical examination should include periodic urine analyses and blood counts, and roentgenograms may be indicated in certain cases.

CONCLUSION

A house built upon the rocks withstands the floods and storms. A firm foundation supports a strong superstructure. An ounce of prevention, still, is worth a pound of cure. These are accepted truisms which none will doubt. In support of these primary axioms the medical profession has been bombarding the public as well as its own members with facts concerning the "periodic physical examination". As yet the seed has not taken satisfactory root. It is to stimulate this growth, and to add impetus to this splendid movement, that I add my small voice to those already in the field.

14 South Seventh St.

Effect of Reducing Diets on the Eye

Considering the availability of food and of low-cost diets as well as of competent medical advice vitamin deficiencies are, at present, unjustifiable. Such deficiencies can be prevented by the cooperation of physicians in the earlier and more thorough application of the vast knowledge on the subject and by an intensive public health education. Providing every new patient, regardless of his complaint, with a printed outline of the importance of a balanced diet and of the dangers resulting from malnutrition or from an unsupervised intake of reducing drugs will greatly contribute to a reduction and possibly to an elimination of vitamin deficiencies. Such printed material could be supplied to physicians or hospitals by local or state health authorities.—William Thau, M.D., Boston, Mass.; Canadian Med. Assn. Jr., 42, 550-553, 1940.

Record Card for Industrial Cases

A. MARCUS, M.D.

FREQUENT misunderstandings arising between patient, attending physician and the Industrial Commission have impressed the writer with the need for a system of record cards designed to obviate this.

As an aid to all parties concerned I have accordingly devised a set of records which will tend to prevent disputes regarding the number of visits made (home and office), the nature of the case history, and the matter of compensation.

The first card (No. 1), front, contains a complete history of the accident, signed by the patient in order to eliminate any possibility of

The Author

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his changing the history or stating that the given history was not his own. This is of considerable importance to the Commission's deputies in the course of their investigation of the case. It also contains all the necessary information to complete either the C-1 or C-3 form of the Commission. The back of this card (No. 1) carries an accurate record of the dates when the patient was seen, e.g. X at office, H at home, H at hospital. The additional space may be used for progress notes, remarks, etc. (This card is a modification of the one first used by Dr. N. C. Yarian.)

The second card (No. 2) is the company card. This record is made at the time of the patient's first visit to the office, and is immediately forwarded to the company, giving the employer complete information as to the time and nature of the accident, the diagnosis and treatment, and the probable duration of disability. It also aids the company in making out their indus-

(1) RECORD CARD (Front)

NAME #1 Record Card (Front)		ADDRESS		AGE	NATIONALITY	M-S-W
SMITH, OSCAR		3151 West 114th Street		39	American	Married
CL. NO.	COMPANY	DATE OF INJURY	FIRST TREAT.	PROBABLE DIS.		
IND. NO. 1532697	J. C. Cobb Co., Inc.	4-30-40	4-30-40	C-1		
QUIT WORK	2060 West 9th Street.	12:00 PM		ab. 2 weeks		
RET. WORK	5-1-40 Lutheran Hospital	AMOUNT	DATE FILED	PAID		
5-15-40	14 yrs.	\$21.00	6-12-40	8-15-40		
OCCUPATION	PLACE OF ACCIDENT					
Sales dept.	Fremont, Ohio					
HOW INJURED While on our way to a sales meeting in Chicago, car skidded on wet pavement, going into ditch. My head was injured, and I lost consciousness. The president of the firm called for me, and I was taken home. The doctor was called, and I was taken to Lutheran Hospital.						
NATURE Concussion of the brain characterized by unconsciousness, dizziness, and headaches.						
TREATMENT First-aid rendered at patient's home. Patient hospitalized, and advised rest in bed. X-ray for possible skull fracture.						
IND. FORMS GO. card 5-1-40 C-1 to co. 5-11-40 C-1 fwd. to comm. 5-16-40						

(1) RECORD CARD (back) PROGRESS NOTES AND REMARKS.

193.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
JAN.																															
FEB.																															
MAR.																															
APR.																															
MAY																															
JUNE																															
JULY																															
AUG.																															
SEPT.																															
OCT.																															
NOV.																															
DEC.																															

First-aid by Dr. A. M. at patient's home.

4-30-40 Patient admitted to Lutheran Hospital.

5-5-40 Patient discharged from Lutheran Hospital.

5-15-40 Discharged from treatment.

THE COMPANY CARD

Name	Oscar Smith	Address	3151 W. 114th St.	Claim No.
Employer	J. C. Cobb Co., Inc.	Occupation	Sales dept.	
Date of injury	4-30-40	Date of 1st treatment	4-30-40	
History of accident While on our way to a sales meeting in Chicago, car skidded on wet pavement, going into ditch. My head was injured, and I lost consciousness. The president of the firm called for me and I was taken home.				
Diagnosis The doctor was called and I was taken to Lutheran Hospital.				
Concussion of the brain characterized by unconsciousness, dizziness and headaches.				
Treat: First-aid rendered at patient's home. Patient hospitalized and advised rest in bed. X-ray for possible skull fracture.				
Estimate of disability About two weeks				
Remarks				
#2 Record Card				

A. Marcus M.D.
Doctor

trial forms, and informs them as to the necessity of replacing the worker if he is disable.

The third card (No. 3) is, perhaps, the most important, and, if adopted, will greatly assist the physician. This is stamped with the date and hour each time the patient presents himself at the office. Upon his discharge he takes this card to

Submitted April 12, 1940.

N.B.—The names and histories cited in these records are entirely fictitious.

his employer, and it serves as a check for the number of visits, both for the patient and the physician. This form serves to eliminate any possibility of the patient disputing the number of times he has made office visits. The calls recorded on this card must check with the number on the fee bill submitted to the Commission.

M. r. Oscar Smith

was treated at office of

DR. A. MARCUS

635 Rose Bldg. Cherry 2268

ON FOLLOWING DATES

May 8, 1940 1:05 P. M.

May 10, 1940 12:30 P. M.

May 12, 1940 1:30 P. M.

May 15, 1940 12:05 P. M.

5-15-40 Discharged

A. Marcus, M.D.

#3 Record Card

These cards are all in addition to and independent of any day book which the physician might keep.

635 ROSE BLDG.

THE ESKIMO AND TUBERCULOSIS

The Eskimo population of the Western Canadian Arctic is showing a distinct and dangerous decline from tuberculosis and other diseases of the white man. The Rev. H. R. Rokeby-Thomas, an Anglican missionary who has spent five years in a parish on Victoria Island which extends up into the neighborhood of the North Pole, has under his care 750 Eskimos of whom 70 per cent are ill with tuberculosis in varying stages. "There is certainly a definite down-trend in population, in my parish at least," says the missionary, "and that probably is true of other parts of the Western Arctic." He suggests that the provision of medical care and hospitals might go far towards solving the problem, but many obstacles would have to be faced and the cost would be heavy. Transportation would always be a problem but he is convinced that something should be done before Canada finds her Eskimo population shrunk to a pitiful remnant of its former thousands.—Contact, Nov., 1939.

Poor health cuts into profits as much as anything else, and the employer should watch for the first symptoms of disease among his workers.—Crusader, May, 1940.

The Place of Vitamin K in Hemorrhagic Diseases

It has been shown that vitamin K is either one of the building stones necessary for normal prothrombin production or that its presence stimulates the liver to a normal prothrombin production. The liver is essential for the maintenance of a normal prothrombin level and Smith is of the opinion that a normal liver is necessary for the effective action of vitamin K. Although the prothrombin time is increased in hepatocellular affections of the liver, many other conditions may also produce prothrombin deficiency. These conditions have been outlined previously in this paper. Notable among these diseases, mention should be made of patients with obstructive jaundice or with persistent biliary fistulas in which little or no bile salts enter the intestinal tract. The fat-soluble materials in the intestines are therefore not emulsified and absorbed. A reduction in vitamin K with a low prothrombin ensues. If large amounts of vitamin K concentrates and bile salts are given these patients, the prothrombin time will become normal within 24 to 48 hours, and the bleeding cease.

It is essential that vitamin K treatment be given as early as possible as it is of markedly lessened value when given if actual bleeding is present. In these latter cases, transfusions of fresh blood are advised to produce a temporary rise in the prothrombin level, while the bile salts are entering the intestinal tract. Rhoades and Panzer claim that preserved or "banked" blood is of little if any value. This is due to the fact that the prothrombin content of "stored" blood falls rapidly. Quick agrees with them and states it seems wise at the present to depend exclusively on fresh blood to control hemorrhage in the jaundiced patient.

The use of vitamin K concentrates with bile salts has been found to be of inestimable value in decreasing the hemorrhagic tendency in patients with a low prothrombin level in the blood. The use of these substances is of especial importance when the prothrombin time is increased, although it may be advisable to anticipate its possible need in other conditions, such as in pregnant women before delivery and in jaundiced patients who have a normal amount of prothrombin preoperatively. A prothrombin estimation is to be strongly recommended in all patients with jaundice in whom surgery is anticipated.—Alvis E. Greer, M.D., Houston; Tex. State Jr. of Med., Vol. XXXVI, No. 3, July, 1940.

Cardiac Murmurs in Children

LOUISE W. RAUH, M.D.

THE presence of a heart murmur in an infant or child presents first of all the problem of whether the murmur is of functional or organic origin. Functional murmurs are extremely common in children. During a recent survey of the school children of Cincinnati to uncover those with heart disease, all the children of one school, from the kindergarten through the eighth grade were examined. Of 710 children 20 per cent were found to have functional murmurs. These murmurs, soft, short in duration, not widely transmitted and usually much modified by change in position, often disappearing after exercise or on deep inspiration or expiration may be heard anywhere over the precordium, most frequently in the second left interspace near the sternal margin and next most frequently in the third and fourth left interspaces medial to the apex. These murmurs may be inconstant, present at one examination and absent at the next. Functional systolic murmurs are often present during acute infections and in the presence of severe anemia. These murmurs will disappear following recovery from the infection and the anemia.

A continuous murmur, of humming character, heard loudest at the right side at the base of the neck in the first interspace and less loud on the left side is found not infrequently in children. This murmur is known as the venous hum in the neck. It is increased in intensity by bending and turning the head to the left, putting the blood vessels of the right side of the neck on the stretch. It is better heard with the subject upright than recumbent. Its exact mechanism is not known but it is probably due to the rapid flow of blood through the jugular veins into the jugular bulb and on into the superior vena cava.

If a murmur is found to be sufficiently loud and constant to indicate an organic origin the next question which arises is whether it is caused by acquired or congenital heart disease. In children the term acquired heart disease is almost synonymous with rheumatic heart disease for other forms of acquired heart disease occur so rarely as to make them negligible, especially for the purpose of this discussion. The history of the patient will be of great aid in classifying organic heart murmurs. Rheumatic involvement of the heart valves is uncommon under three years and very rare in infancy. An organic murmur in a child under four years is almost always of congenital origin. In older children a history of

symptoms of the rheumatic state will lead the examiner to suspect acquired heart involvement.

In acquired heart disease the mitral valve is most frequently involved. In mitral insufficiency the characteristic murmur is systolic in time, fairly loud and high pitched, heard best at the apex and transmitted toward or into the axilla. Many times this murmur is also transmitted along the left sternal border toward the base. A systolic murmur with maximum intensity over the aortic area, usually accompanied by a systolic thrill indicates an aortic stenosis.

The diastolic murmur of mitral valve involvement deserves more detailed attention. It is in childhood that one has the opportunity to follow this murmur through the various phases of its development. In the earliest stages of mitral valve damage, a systolic murmur is usually the only evidence of valve injury. Shortly thereafter a second murmur may be heard at the apex, occurring early in diastole, short and rumbling in character. Frequently it is difficult to distinguish this murmur from a third heart sound. This early diastolic murmur may occasionally be due to a dilatation of the left ventricle early in mitral valve disease and may subsequently completely disappear with recovery of muscle tone. Months or even years later a second diastolic murmur may be heard immediately preceding the first sound with a silent interval between the early and late diastolic murmurs. Finally the silent interval may also be invaded so that one long diastolic murmur is heard, extending uninterruptedly from early diastole up to the first heart sound. When this late stage has been reached the first sound at the apex has usually become loud and snappy and the systolic murmur at the apex may be somewhat diminished in intensity. It should be emphasized that the typical harsh, crescendo, so-called presystolic murmur is a relatively late finding and may not be present in undoubted mitral stenosis in childhood. This murmur is heard at or medial to the apex and over a small area. It is heard better when the patient is reclining than when sitting up and may be still better heard when the patient lies on the left side. Exercise with an increase in heart rate may bring out the murmur.

A second diastolic murmur is important in the heart disease of children. It is that murmur produced by aortic insufficiency. This murmur is long, blowing and usually soft in character and begins immediately after the second heart sound. It is best heard over the sternum and immediately to the left in the third and fourth interspaces

Dr. Rauh was selected to write an editorial summary on the above topic by a committee of ten leading Ohio pediatricians.

rather than over the aortic area. The murmur is often heard better with the diaphragm stethoscope than with the bell stethoscope and sometimes may be best heard with the naked ear. This murmur may be transmitted to the apex but is usually easily distinguishable from the diastolic murmur of mitral valve disease.

In a discussion of heart murmurs the friction sounds heard in acute pericarditis should be mentioned so that these sounds be recognized. The friction sounds are scratchy to and fro in character, seem more superficial than heart murmurs and are usually increased in intensity by pressure with the stethoscope.

There should be little difficulty in distinguishing the murmurs of congenital heart disease from those of acquired heart disease. The great majority of congenital murmurs are systolic in time, only occasionally having an added diastolic element. This fact distinguishes these murmurs from the diastolic murmurs of mitral and aortic origin. Furthermore, in congenital heart disease the systolic murmur has its maximum intensity over the body of the heart above the apex and is usually transmitted in all directions and frequently is heard over the back. Murmurs of acquired heart disease are less frequently heard over the back. The presence of cyanosis, clubbing of fingers and toes and often deformity of the chest will aid in the differentiation of congenital from acquired heart disease.

The anatomic diagnosis of congenital heart disease from the murmur alone is difficult. Even with the aid of other laboratory procedures such as roentgenology, fluoroscopy and electrocardiography the anatomic diagnosis is often impossible. However, certain murmurs are fairly typical and their presence indicates certain congenital anomalies. A constant harsh systolic murmur maximum in the third and fourth left interspaces near the sternal margin, varying little on change of position and in some instances accompanied by a systolic thrill is suggestive of an uncomplicated defect of the interventricular septum.

A continuous harsh rumbling (machinery type) murmur with systolic accentuation maximum in the first and second left interspaces, also accompanied by a thrill in a fair proportion of cases is indicative of a patent ductus arteriosus. In early life frequently only the systolic component is present and the murmur does not assume the machinery quality until later childhood or adulthood.

A defect of the interauricular septum may be suspected when a systolic or late diastolic murmur, more variable and less harsh than the murmur of interventricular septal defect and patent ductus arteriosus, is heard in the third left interspace in an acyanotic individual.

In a child who is cyanotic a harsh systolic

murmur accompanied by a systolic thrill usually heard in the second left interspace indicates a pulmonic stenosis. This lesion rarely occurs alone and is usually accompanied by multiple anomalies. Commonest of these are dextroposition of the aorta, defect of the interventricular septum and hypertrophy of the right ventricle. These anomalies occurring together constitute the tetralogy of Fallot.

4179 Hamilton Ave.

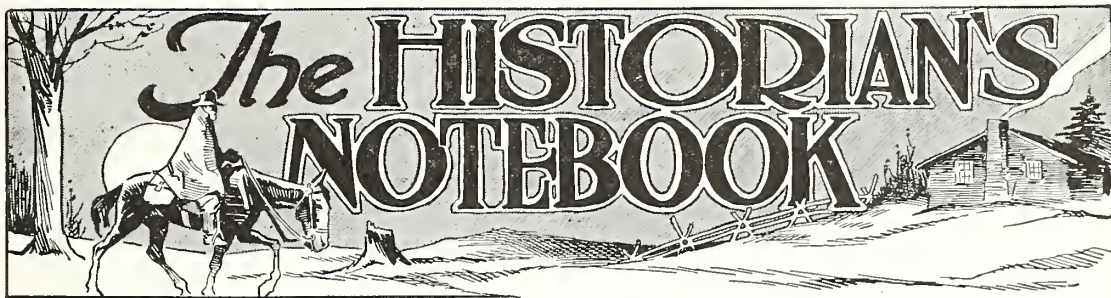
Hypertension

The question of diet as a factor in producing hypertension has always been of interest, and still is. Meat is usually singled out as the offending food. Eskimos live on a carnivorous diet, yet Thomas found their blood pressure to be remarkably close to normal. Steffanson lived upon a meat diet for as long as six years at a time. To make sure that his out-of-door life was not a factor, he, with a companion, Anderson, remained upon an exclusive meat diet in New York City, for a year under constant observation with metabolic studies by a committee of physicians especially interested in nutrition. They remained perfectly well, with no elevation in blood pressure. And hypertension does occur in vegetarians. The same negative results apply to fats as to carbohydrates.

But what we have said in regard to qualitative does not apply to quantitative diet. Too liberal a diet of any kind may increase blood pressure. It tends to produce overweight and obesity and high blood pressure are very frequently associated.

Alcohol used even moderately may tend to obesity, but aside from this, it probably has no effect on the production of hypertension. In experiments in nonsmokers, tobacco will temporarily raise the blood pressure, but in those accustomed to smoking there is little or no effect one way or the other. Tobacco certainly is not one of the causative factors.

Focal infections have, of course, been held responsible as has intestinal stasis, and so-called autointoxication. Carious teeth, infected tonsils, etc., are found in hypertensive cases, as they are in normals. There is no reason for assuming that they have influence in causing the hypertension and there certainly is no reason for assuming that their surgical elimination will also eliminate the hypertension. An exception would be those cases in which a too enthusiastic surgical interference has eliminated the patient altogether.—Newell C. Gilbert, M.D., Chicago, Ill.; *Northwest Medicine*, Vol. 39, No. 7, July, 1940.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

The Oberlin Hospital

An Adventure in Co-operation

GEORGE C. JAMESON, A.M., M.D.

ON August 17, 1907, Oberlin's first hospital was opened to receive patients. In itself it was not impressive. With a capacity of eight beds, the simplest of equipment, no endowment, housed in a little rented dwelling, it required faith and imagination to even call it a "hospital", but faith and imagination its sponsors had, and its opening marked an epoch.

Oberlin was nearly three score and ten years old before much was said about its need of a hospital. In those days towns of its size seldom had anything of the kind. Sickness was treated in the homes where it occurred, the patient being cared for by the busy house mother, occasionally helped out by a domestic nurse. Trained nurses were rare. Surgery was limited to accidents and minor conditions. People died of inflammation of the bowels or peritonitis, but no one knew that a majority of these cases could be saved by surgery, until appendicitis was recognized and described by Dr. Fitz of Boston in 1886.

Near the turn of the century younger physicians who had been trained in modern schools began to call attention to the fact that proper medical and surgical treatment was difficult or impossible without better facilities. It was pointed out that this was especially true of Oberlin with her 2,000 students in boarding houses and dormitories at an age when certain types of illness were most likely to occur. This argument appealed to the college authorities. President Barrows presented it to the trustees in 1902. Dr. Luce, dean of women, said in her annual report, "In several cases of typhoid fever we have been dependent upon the kindness of townspeople for suitable accommodations, and in two cases the physician was forced to take the

The Author

● Dr. Jameson, Oberlin, Ohio, is a graduate of University of Pennsylvania, School of Medicine, 1893; chairman of staff of Allen Hospital, Oberlin, Ohio.

patient to his own home." (The physician here referred to was Dr. C. H. Browning, who took cases at different times from college houses, transferred them to his home, provided nurses, and saw them safely through attacks of typhoid fever.)

Abdominal surgery was introduced to Oberlin by Dr. Dudley Peter Allen who had located in Cleveland after completing his medical training in Harvard, Massachusetts General, and European hospitals. Called here in consultation with his father and with Dr. Noble, his father's associate, he began to demonstrate the possibility of saving by surgery many of the violent cases of abdominal inflammation. He operated on a number of them by what has since been termed "kitchen surgery", with the patient before a window on a sheet-covered table. I had the privilege of seeing him perform a successful appendectomy in these circumstances. But Dr. Allen advised that a safer way was to transport these cases to Cleveland where they would be operated in aseptic surroundings. Several times when called here in consultation he took the patient back with him, personally conducting the transportation, the operation and the after-treatment. This was so manifestly the better way that instead of calling the surgeon here for consultation the local physicians began the practice of saving time by taking the case at once to the surgeon

Read before the Medical and Surgical Staff of Allen Hospital, June 6, 1940.

in his hospital. The patient was taken to the railroad station on a cot in an improvised ambulance, lifted into a baggage car and accompanied by his physician to Cleveland where he was met by an ambulance, conveyed to the hospital and put into the hands of the surgeon. One season it was noted that two of the local physicians working together in this way averaged approximately one case a week throughout the winter; and the striking thing about it was that they were all successful, with no fatalities. Dr. Allen remarked that we had "corking luck".

One very critical case thus handled was that of Miss Myrtle Grace Vial who was operated by Dr. Allen in Lakeside Hospital. The condition proved to be one of miliary tuberculosis of the bowels. After operation and prolonged stay in the hospital she made a remarkable recovery, and the appreciation of Dr. Allen's skill and care on the part of Miss Vial's family led to most generous gifts of equipment for Allen Hospital when it was built, and a continued interest in providing needed improvements up to the present time.

Serious medical as well as surgical cases were handled in the same way, and though results were good the removal to a distant hospital not only caused delay in urgent cases but was also a harrowing experience for the patient and an anxious one for the attending physician; and it showed more plainly than anything else why there was vital need for a hospital in Oberlin.

In the autumn of 1906 six practicing physicians of the town came together to talk over the situation. This in itself was a good omen; for in those days when six Oberlin doctors could meet and confer in a friendly way about anything it was an event! On this question there was no disagreement. Professional jealousies had to adjourn.

This first conference was followed by others at which the great question was how to build and finance the institution which we all agreed we must have. The natural solution was to find some person of wealth who would embrace the opportunity to immortalize himself by giving and endowing just what was needed; but none of us could find such a person. It might be done in time, but the need was too urgent to wait. It was determined to call into our council leaders of various organizations in the community—the pastors of the churches, the leaders of clubs and societies, representatives of the faculty and of the business men. The response was encouraging and in this group it was suggested that instead of waiting for outside help we form a co-operative organization in our own community, raise as many small amounts as possible, put them together and make some sort of a beginning.

Thus the Oberlin Hospital Association came

into being. Its only visible means of support were the annual dues of its members, which were fixed at five dollars. Its code of regulations stated that "The Hospital shall be a private institution supported by the fees of members of this Association, voluntary contributions, and the receipts from those patients who are able to pay for their board and care." It was hoped that 200 members might be enrolled to give a nucleus of one thousand dollars. This hope was realized. There was a prompt enrollment of 204 members in the first canvass. The affairs of the Association were placed in the hands of a board of managers with 17 members, composed of eight physicians and nine laymen, these last including



OBERLIN'S FIRST HOSPITAL

representatives of the college faculty, the village council, the board of commerce, the associated charities, the mutual benefit association, the village improvement society, the pastors of the local churches, and the woman's auxiliary. Five trustees were to control the business of the hospital, and to avoid any suspicion of professional favoritism it was agreed among the physicians that no one of their number should serve on the board of trustees.

A well organized Woman's Auxiliary met monthly to provide and care for linen and kitchen supplies. Dr. Browning conceived and promoted a hospital fair which became an annual event. It was held in a big tent on the campus or on the public school grounds and was popular and profitable, for it was thronged by people of all ages, colors and previous conditions of servitude.

The house at 21 South Cedar was rented and adapted as far as possible to our needs. Interested individuals and organizations contributed equipment and furnishings and in a surprisingly short time the establishment was ready for operation. The campaign of education, started by a few physicians, had been so thorough that by

this time the whole community was hospital-minded; and as nearly everyone had done something to help the enterprise it had the good will and interest of all.

In our preliminary work Dr. Dudley Allen of Cleveland was often consulted. He gave us his advice though he was skeptical as to the wisdom of starting a hospital without more financial backing. He told of numerous enterprises of the kind which had failed and been abandoned in a short time, and he predicted that the doctors would soon have big deficits to make up out of their own pockets; but when a year later a report was submitted to the college trustees showing that our hospital had been in operation for 12 months not only without debt but with the accumulation of a small surplus in its treasury, Dr. Allen said, "These people have accomplished the impossible. It couldn't have been done anywhere else but in Oberlin." And on his motion the college trustees appropriated seven hundred and fifty dollars per year toward the support of the hospital.

From the start a staff of efficient and devoted nurses overcame difficulties and inconveniences to give patients the best of care, and the little surgery proved itself invaluable in accidents and emergencies. In addition to the work of local practitioners, major operations were performed there by Dr. Crile, Dr. Frank Bunts, Dr. Hamann and other surgeons, and the treatment of critical medical cases was frequently directed by Drs. Sawyer, Philips, Hoover and other internists.

Much of the success of the venture was due to Dr. F. E. Leonard, head of the college physical education department, who as President of the Association for 15 years gave untiring attention to every part of the work. We were also most fortunate in our superintendents, notably Miss Anna Laughlin, who in the 18 months of her service systematized and perfected the organization of the staff and brought it to its real state of efficiency; and Miss Gertrude Greenwood, who for 12 years maintained this high standard and spared no effort to make the hospital render its best possible service to college and community. To these superintendents belongs the credit for the atmosphere of cordial good-will and personal helpfulness which pervaded the place and which made friends of everyone.

As people become accustomed to using the hospital, applications for admittance exceeded the capacity of the house. In an epidemic of typhoid fever additional beds were crowded in until 16 patients were being cared for instead of the eight which were supposed to fill the house. It was apparent to everyone that a larger institution was needed. Later, in an epidemic of scarlet fever a house at the corner of Prospect and Oak Streets was rented by the college, furnished by the Association, and operated by the

staff as a detention cottage. For a time this house was also filled to capacity. In 1917 the College placed at the disposal of the Association two small houses on South Professor Street, one of which was operated in caring for contagious cases, the other for overflow from the main hospital.

In 1915 the Association and the medical profession suffered an irreparable loss in the death of Dr. Browning. His enthusiasm and courage in the face of difficulties had been one of the main-springs of our hospital enterprise from the start, and the success of the movement had depended in no small degree on his devotion, his versatile planning, and the energy which he put into the work. Nothing could have been more natural or appropriate than that a permanent memorial to him should have been proposed in connection with hospital work in Oberlin; and the service which he had given so generously to college students made the provision for their better care a fitting monument to his name. Beginning in two rooms rented by the College in Dr. Browning's former home, the work of Browning House as a college infirmary has expanded until it has become an important part of Oberlin's hospital system.

Always while the Association was carrying on, there was the hope that a generous benefactor was waiting "just around the corner" to give and endow an adequate hospital. By letters and journeys to interview possible givers, numerous attempts were made to discover and interest such a benefactor. In these attempts we turned to Dr. Allen for advice. It was with his helpful criticism and approval that definite plans were made for such a hospital as experience showed we needed, with estimates of its cost and a budget for its maintenance. A committee was appointed to make this study and to formulate plans. An architect was employed. Hospital experts were consulted. A building contractor went over the architect's plans and specifications to tell us what our building would cost.

Our committee tried to find opportunities to present the cause to Mr. Rockefeller and to certain New York capitalists who were said to be favorably disposed toward benefactions of this kind. Failing in this, they asked and were granted an interview with Mr. Louis Severance, a Standard Oil man in Cleveland who had given Oberlin her chemical laboratory and who was a trustee of the College. Mr. Severance was the father of Mrs. Dudley Allen, and for this interview Dr. Allen gave us particular suggestions as to the best way to approach Mr. Severance and the best form of presentation; and he also asked that immediately after the interview we report it to him in detail. When we did so he said, "Mr. Severance may give you the hospital. If

you were Presbyterians I think he would"! We came home very much heartened.

A short time after this Mr. Severance gave a large sum to the Presbyterian Church to establish the foundation for a pension fund for teachers in Presbyterian schools, and thereupon he wrote advising us to raise money for our hospital by general taxation. As this plan had been previously carefully investigated and found impractical, we were back exactly where we were before the attempt to interest him was made.

Our disappointment was keen and was apparently shared by Dr. Allen. As presented to Mr. Severance our plan called for one hundred thousand dollars, of which fifty thousand was for building and fifty thousand for endowment. After the death of Dr. Allen in 1915 Mrs. Allen, in memory of her husband and his father, gave exactly this amount to the College for a hospital, which led some of us to think that our interviews with Mr. Severance and Dr. Allen had not been forgotten. In the time which had elapsed before the gift was made the cost of building had greatly increased so that the amount in our estimate was inadequate for the building and had to be supplemented by additional gifts from the same and other sources before Allen Hospital could be built.

In the meantime the little house at 21 South Cedar continued to be a most important and successful center of medical activity. Under its roof for 18 years citizens, students and country people received the best that medicine and surgery could give. For scores of patients and their friends the skilled and kindly care they received there removed forever the dread so often associated with the word "hospital."

The Association while carrying on its work never relaxed its effort to obtain for Oberlin the hospital which had been its dream from the start. With this in view a fund was gradually accumulated with which to buy a site for a new building when it should come. Locations were considered and the property on which Allen Hospital now stands was chosen and purchased by the Association.

With the administration of the new hospital placed in the hands of the College trustees there was no longer reason for the existence of the old Association. Its mission was accomplished and it was promptly disbanded. In liquidating its affairs it transferred to the College with clear title the building site which it had acquired at a cost of \$7197.40; and also placed in trust with the College the funds which it had accumulated, which, including gifts and memorials, amounted to \$13,375.52, the income of which helps to provide for hospital care of needy patients in the community.

There is in our history probably no finer example of genuine public spirit than in this story

of Oberlin Hospital. The Association, embracing every element in the community and depending entirely on popular support and co-operation, functioned for nearly two decades efficiently and without friction, supplying one of the greatest needs of town and college, paying its own way, establishing unquestioned credit with banks and business houses, and at the same time accumulating at the rate of over one thousand dollars per year the means for perpetuating its work for the public good.

When Dr. Browning was once asked what it was that had made Oberlin Hospital such a notable success, he answered, "Team work." This was undoubtedly the key to the whole situation; and the "team" was approved and supported by the entire Oberlin community.

In this sketch the name of Allen has recurred repeatedly. The name is inseparably connected with the history of medicine, not only in Oberlin but also in the Western Reserve and the State of Ohio.

The first in this distinguished medical lineage to come to Ohio was Dr. Peter Allen who arrived in 1908 in Kinsman, Ohio, a short distance west of the Pennsylvania line. He had come on horseback from Connecticut where he had just completed a three years' course in medical study with a preceptor, bringing in his saddle-bags a few surgical instruments, medical books and drugs. He proceeded to build himself a log cabin for an office, and with his horse and saddle-bags he began the practice of medicine among the pioneers of eastern Ohio and western Pennsylvania. Those old hand-sewed leather saddle-bags, now in the Allen Memorial Medical Library in Cleveland, are among the treasured mementos of an illustrious pioneer physician. He helped out his finances by teaching school, and in the war of 1812 he enlisted as a surgeon, returning at its close to continue his practice. He served one term in the Ohio House of Representatives, and was the first president of the Ohio Medical Convention, which later became the Ohio State Medical Association. Several years later he was again elected president of this Association.

His son Dudley entered practice with him after taking his medical degree from Jefferson in 1837. This second Dr. Allen had assisted his father in his work as soon as he was old enough to do so. He often laughingly said that he practiced medicine before he ever studied it. He continued his practice in Kinsman until after his father's death in 1864.

In 1865 he moved with his family to Oberlin. He had taken his bachelor's degree from Western Reserve in the first class which graduated from the classical course in that institution, and it is our great good fortune that when he sought a home near a seat of learning in which to live and educate his children it was Oberlin rather

than his Alma Mater which attracted him. With him came his daughter, Jennie, who entered college, and his son, Dudley Peter, a lad of 13 who was enrolled in the preparatory department.

This second Dr. Allen by birth, training and professional experience was an outstanding physician, and in the history of our local profession no event has had a greater or more lasting influence than his decision to make this his home and the scene of the best part of his life work.

He had a passion for learning; and while medicine was his chief concern it was little more so than his zeal for making possible higher education for every young person who desired it. In the 25 years of his active work here no one will ever know how many hard-pressed and discouraged students he enabled to complete the college course when otherwise it would have been impossible; and always his help was given without ostentation or show—much of it secretly.

Tragedy came into the life of Dr. Allen three years after he came to Oberlin in the death of his daughter, Jennie, a college student. As a memorial to her he established in 1875 the "Jennie Allen Nurse Fund" which was the first tangible provision ever made for the nursing of self-supporting students in Oberlin. This class of students had always been a responsibility borne by benevolent citizens, members of the faculty, and the town's doctors. In numerous instances they were taken into faculty homes to be nursed; and no one had a keener appreciation of the situation than Dr. Allen who gave freely to such students the most conscientious professional attention.

His son, Dudley Peter Allen, graduating from college in 1875 had an unusual opportunity, as a student and a member of a prominent doctor's family, to observe all sides of Oberlin's health problems and to gain a full understanding of what the students needed. This he never forgot, and to this home-town of his boyhood and college days he was always devoted and loyal, even when he had become a national figure as a surgeon. This interest and loyalty has had much to do with making Oberlin what it is today both in art and in medicine. When he became one of the college trustees his familiarity with local conditions made him a wise and sympathetic counsellor in all matters which concerned the health of citizens and students.

To this interest of the Allens, father and son, in student welfare is due a large measure of credit for the enviable health conditions enjoyed by our students of the present day. To those of us who remember our own student days and the conditions which prevailed prior to 1907 and compare them with what obtains in Oberlin today, the contrast is striking and gratifying; and it should be remembered that it was for the students more than for anyone else that the

hospital movement was started and that the present hospital was given.

Thus the Oberlin Hospital with its humble beginning earned for itself a place of honor in the history of Oberlin's beneficent and successful enterprises. It brought rich returns in service to the community which supported it, and it prepared the way and helped to bring to Oberlin its excellent successor, Allen Hospital.

American Association of the History of Medicine to Meet at Cleveland, October 7

The American Association of the History of Medicine which holds its annual meeting each Spring at Atlantic City, has decided to institute regional meetings. The first of these will be held under the sponsorship of the Medical History Division of the Ohio State Archeological and Historical Society, on October 7, 1940, in the Cleveland Medical Library Auditorium, Cleveland.

In the morning, papers will be presented by Dr. Bruno Meinecke, Ann Arbor, Michigan; Dr. W. H. Archer, Pittsburgh, Pennsylvania; Dr. E. F. Kiser, Indianapolis, Indiana; Dr. L. S. Deitchman, Youngstown; Dr. N. G. Russell, Jr., Buffalo, New York; Dr. D. A. Tucker, Jr., Cincinnati; Dr. Savas Nittis, Detroit, Michigan; and Dr. T. G. H. Drake, Toronto, Canada.

In the afternoon there will be demonstrations of historical collections by Dr. H. N. Cole, Dr. Otto Glasser, Dr. A. B. Bruner, Dr. R. L. Haden, Dr. E. H. Cushing, and Dr. Howard Dittrick, all of Cleveland, and Dr. R. G. Paterson of Columbus, Ohio.

In the evening there will be a dinner at Wade Park Manor, followed by addresses by Dr. Hugh Stalker of Grosse Pointe, Michigan, and Dr. Logan Clendening of Kansas City, Missouri.

A cordial invitation is extended to all those interested in the history of medicine to attend these sessions and, of course, this includes the ladies.

Acting Pharmacy Dean Named

President Winfred G. Leutner of Western Reserve University has announced the appointment of Mr. Edward Dawson Davy, professor of pharmaceutical chemistry, as acting dean of the School of Pharmacy, filling the vacancy left by the resignation of former Dean Edward Spease, who will direct the newly-formed interprofessional relations department of the National Association of Retail Druggists. Plans are also going forward, Leutner said, for a closer correlation between the School of Pharmacy and the School of Medicine, similar to that between the Schools of Medicine and Dentistry.

Committee on Medical Preparedness Meets; Drive To Get In Questionnaires Started; Each County Medical Society Requested To Name Local Preparedness Committee

CONCRETE arrangements for carrying on a vigorous medical preparedness campaign in Ohio as a part of the National Defense Program were made by the Committee on Medical Preparedness of the Ohio State Medical Association at a meeting of the committee at the State Headquarters Office, Columbus, on Sunday, August 18.

Seven members of the committee of 12, in addition to the chairman, Dr. H. V. Paryzek, Cleveland, attended the meeting. They were: Dr. Thomas P. Sharkey, Dayton; Dr. C. I. Kuntz, Fremont; Dr. James N. Wychgel, Cleveland; Dr. H. H. Musser, Akron; Dr. Lewis W. Cellio, Carrollton; Dr. E. R. Brush, Zanesville, and Dr. George G. Hunter, Ironton. Two members of the committee, Dr. R. H. Good, Van Wert, and Dr. Claude S. Perry, Columbus, were unable to attend as they were engaged at that time in army maneuvers in Wisconsin. The remaining members of the committee, Dr. Robert Conard, Wilmington, and Dr. Charles R. Keller, Mansfield, were on vacation outside the state.

Dr. Fred W. Rankin, Lexington, Kentucky, member of the Committee on Medical Preparedness of the American Medical Association and in charge of medical preparedness activities for the Fifth Army Corps Area which includes Ohio, attended the meeting. Dr. Rankin reviewed the activities and plans of the Committee on Medical Preparedness of the A.M.A. and assisted the committee of the State Association in laying out a schedule of activities for Ohio.

FOLLOW-UP DRIVE STARTED

Plans were made for intensive follow-up activities among Ohio physicians to have all physicians fill out and return immediately the Medical Preparedness Questionnaire sent to all physicians in the country by the American Medical Association. It was reported that as of August 18, approximately 80,000 physicians had returned the completed questionnaire to the A.M.A. offices, Chicago. Up to that time, 4,418 Ohio physicians had returned the questionnaire, representing about 47 per cent of the 9,338 Ohio physicians to whom the questionnaire was mailed.

Believing that every physician should complete and file the questionnaire at the earliest possible date, so that the qualifications of each physician can be tabulated and he can be used for work for which he is best suited in event of a national emergency, the committee author-

ized the following promotional activities to stimulate return of the questionnaire:

1. Publication in the September issue of *The Ohio State Medical Journal* of an appeal to all members to immediately fill out and return the questionnaire.

2. Preparation of a dodger designed primarily for hospital bulletin boards, copies to be sent to County Society Secretaries for distribution to hospitals where the dodger can be displayed for the information of the medical and surgical staffs.

3. Notice over the signature of the committee to be mailed to all members at a later date—when announcements are sent out regarding the 1940 course of Regional Postgraduate Lectures.

WANT COMMITTEE IN EACH COUNTY

The Executive Secretary was instructed to prepare a bulletin for County Society Secretaries urging them to contact members personally, emphasizing the importance of returning the questionnaire; to supply interns with a questionnaire; and to request physicians who are not members of the county medical society to complete the questionnaire. Arrangements were made for obtaining a supply of the questionnaires so that each County Society Secretary could be furnished with copies for distribution to members who may have lost the blank mailed to them by the A.M.A.

Realizing that the medical preparedness program will undoubtedly be a long-range activity, the committee agreed that it would be necessary and desirable to have an auxiliary committee on medical preparedness in each county. Therefore, the committee instructed its chairman, Dr. Paryzek, to send a communication to the president of each County Medical Society requesting him to appoint a local Committee on Medical Preparedness consisting of not less than three members of the County Medical Society which will act as a sub-committee of the State Association committee. The committee instructed Dr. Paryzek to inform County Society Presidents that such a local committee should be appointed on or before September 15 and that the names of the committee members should be filed promptly with the State Headquarters Office, Columbus.

There was a general discussion regarding the medical activities which will be necessary if the National Conscription Bill is enacted and selec-

(Continued on page 982)

*Attention-*ALL MEMBERS!

RETURN YOUR MEDICAL PREPAREDNESS QUESTIONNAIRE

to the

**American Medical Association
535 North Dearborn St., Chicago**

IMMEDIATELY!

PROMPT return of all questionnaires to the A.M.A. is essential as the CONFIDENTIAL information assembled in this manner will be used in organizing the medical profession as a part of the national preparedness campaign.

If there is national conscription and in event of a national emergency, physicians will be called as are all other citizens and an effort will be made to fit every physician into work for which he is best suited.

Information obtained from the MEDICAL PREPAREDNESS QUESTIONNAIRES sent by the A.M.A. to all physicians will be used by the Army and Navy Medical Departments, assisted by the A.M.A., Ohio State Medical Association, and other state medical societies, to accomplish this end.

GREAT ADVANTAGE TO THE COUNTRY as a whole and TO EACH PHYSICIAN will accrue if he will assist in assembling this material by SENDING IN HIS COMPLETED QUESTIONNAIRE TO THE A. M. A. OFFICE, CHICAGO, IMMEDIATELY.

If you have not received a questionnaire, or have mislaid the one you received, you may obtain one from your County Society Secretary, or from the Ohio State Medical Association, 79 East State Street, Columbus, Ohio.

*We Earnestly Solicit the Prompt Cooperation of All Members
of the Ohio State Medical Association on This Vital Matter*

COMMITTEE ON MEDICAL PREPAREDNESS

Ohio State Medical Association, H. V. PARYZEK, M. D., Chairman

tive service boards are established in Ohio. Information on this subject from the office of the Adjutant General of Ohio and the War Department at Washington was reviewed. Data on the composition and work of draft boards set up in 1917-18 was considered.

OFFER ASSISTANCE TO GOVERNOR

Special attention was given to a request made by Governor John W. Bricker that the committee discuss the medical factors which would be involved in the selection of draft boards and submit recommendations for his consideration. The committee instructed its chairman and the Executive Secretary to present to the Governor certain suggestions on this subject and to offer him the facilities and cooperation of the State Association on this and similar questions which may arise from time to time.

Correspondence from the American Medical Association's committee was read and discussed. The committee of the State Association expressed approval of three resolutions recently adopted by the Committee on Medical Preparedness of the A.M.A., namely: recommending that the National Defense Commission provide funds to be expended under the direction of the U. S. Public Health Service for the training of physicians whose services may be needed in the field of industrial medicine during a national emergency; urging exemption of medical students and interns from conscription to provide for continuation of medical education and preparation of physicians for active practice; and, suggesting the appointment of a coordinator for medical and public health services related to the National Defense Program.

The committee plans to hold meetings frequently for the purpose of working out other details which may arise as the National Defense Program develops.

Lima Academy Lectures on Sept. 24

Dr. M. A. Blankenhorn, professor of medicine at the University of Cincinnati College of Medicine, and some of its associates, will be the speakers at the Fourteenth Annual Series of Lectures sponsored by the Academy of Medicine of Lima and Allen County, Tuesday, September 24, at Lima. The following subjects are to be discussed: neurology—convulsive seizures, their evaluation and treatment; gastroenterology: diseases of the liver (acute and chronic), diagnosis and treatment; deficiency diseases; neurosyphilis, mostly treatment; pneumonia—mostly treatment. The meeting will be held from 10:00 A.M. to 5:00 P.M. For additional details write the officers of the Lima Academy of Medicine, Dr. O. S. Robuck, president and Dr. J. M. McBride, secretary.

Board and Courts Crack Down on Those Violating Medical Practice Act

Dr. H. M. Platter, secretary of the State Medical Board, reports the following list of local court actions on charges filed by the Board for violations of the Medical Practice Act and the rules and regulations governing limited practitioners:

J. C. O'Neill, Columbus, February 23; found guilty of practicing medicine; probation.

M. N. Ellis, Columbus, unlicensed naprapath; found guilty of advertising and announcing; fined \$150.00 and costs.

E. E. Moffett, Woodsfield; plead guilty; fined \$25.00 and costs on March 1; fugitive.

C. J. Wohlgenuth, Columbus, unlicensed naprapath; plead guilty on March 29, on two counts; fined \$150.00.

T. E. Leonard, Columbus; plead guilty on two counts; fined \$150.00 and costs on March 15.

Isadore Silverman, Cuyahoga County, unlicensed; found guilty; fined \$25.00 and costs on March 18.

Frank A. Miller, Medina; plead guilty; fined \$25.00 and costs on March 26.

Spafford Williams, Cleveland; found guilty of illegal practice; fined \$50.00 and costs on May 14.

W. N. Ellis, Columbus, unlicensed naprapath; plead guilty; fined \$75.00 and costs on July 9.

"Prof." Collins, placed on probation on June 14.

Olive Martin, Columbus, unlicensed chiropractor; probation on June 14.

C. M. Leo, Columbus; unlicensed practitioner of medicine; fined \$100.00 and costs on June 22.

J. B. Dallison, Columbus; probation on June 22.

A. J. Mintz, Dayton; found guilty of illegal practice of medicine; fined \$50.00 and costs on June 14.

S. M. Langstaff, Madison County; unlicensed chiropractor; fined \$100.00 and costs on April 11.

H. R. Reaver, Cincinnati; unlicensed chiropractor; fined \$50.00 and costs on August 15.

W. C. DeBenis, Cincinnati; unlicensed chiropractor; fined \$50.00 and costs on July 11.

James R. Monroe, Toledo, unlicensed osteopath; plead guilty and sentenced to one year in the workhouse—suspended if he leaves the state and does not return, on July 30.

In addition to this list of convictions, there are now 12 cases filed and awaiting trial in various parts of the state. Three cases were dismissed after hearing. One of the cases pending is that of Arthur C. Williams, Dayton, unlicensed chiropractor, charged with advertising and announcing and opening and conducting an office. He is at present out on a \$2,000 bond.

Dates, Subjects, Speakers and Centers for 1940 Regional Postgraduate Lectures, Sponsored by State Association

THE third course of the Ohio State Medical Association's five-year Regional Postgraduate Lecture Program will be presented in 10 regional centers throughout the state during the coming Fall and Winter. Selected because of their facilities for such meetings, and their accessibility, the following cities will be hosts for this year's course: Napoleon, Tiffin, Mansfield, Warren, Cadiz, Athens, Columbus, Wapakoneta, Lebanon and Portsmouth.

There will be three meetings, about a month apart, in each of the 10 regions, with two 45-minute talks in the afternoon, beginning at 3:30 o'clock, and two in the evening, beginning at 7:30 o'clock.

Local chairmen have made arrangements so that all who attend the meetings may eat dinner together. Members of the Association will receive a notice approximately one week prior to each of the meetings in their respective regions. This reminder will include a reservation card to be mailed to the local chairman by those planning to attend the dinner. Prompt return of these cards will facilitate the work of the local chairman in making necessary reservations.

ABLE SPEAKERS SELECTED

Under the supervision of the Committee on Education and the Sub-Committee on Regional Postgraduate Lectures of the State Association, speakers have been selected who are recognized for their clinical experience and speaking ability. They have been instructed to emphasize diagnosis and treatment. Each lecturer has been provided with an outline of what his talk should cover. Subjects to be discussed should prove appealing to general practitioners as well as specialists.

All members of the State Association are urged to attend these postgraduate sessions. **There will be no registration fee.** Dinner will be provided at a reasonable cost.

Outlines for the 12 lectures, names of the speakers, and dates the subjects will be presented in each region, follow:

1. The Child and His Heart

It is essential that we consider the patient with the heart, rather than the heart apart from the individual. This viewpoint involves the prognosis and management of congenital diseases of the heart, assisting and instructing the victim's parents, and preventing them from spending money needlessly. What is the cause of heart disease? What is the role of heredity? Does rheumatic heart disease always result from acute infections? How can we anticipate cardiac involvement?

Region A—Napoleon. Parish Auditorium, St. Paul's Lutheran Church. Thursday, Sept. 19, Oct. 10, Nov. 14. Dr. J. R. Bolles, local chairman.

Region B—Tiffin. Meetings at Tiffin Theatre, dinner at Hotel Shawhan. Wednesday, Sept. 25, Oct. 23, Nov. 27. Dr. E. H. Porter, local chairman.

Region C—Mansfield. Mansfield-Leland Hotel. Wednesday, Sept. 18, and Oct. 16; Thursday, Nov. 14. Dr. Mabel Emery, local chairman.

Region D—Warren. Warner Hotel, Wednesday, Sept. 18, Oct. 30, Nov. 27. Dr. Paul C. Gauchat, local chairman.

Region E—Cadiz. Hotel General Custar. Thursday, Sept. 26, Oct. 24, Nov. 28. Dr. F. Foster Dye, local chairman.

Region F—Athens. Hotel Berry. Thursday, Sept. 26, Oct. 24, Nov. 28. Dr. John R. Sprague, local chairman.

Region G—Columbus. Deshler-Wallick Hotel. Wednesday, Oct. 9, Nov. 6, Dec. 4. Dr. Link M. Murphy, local chairman.

Region H—Wapakoneta. Elks' Home. Thursday, Sept. 26, Oct. 24, Nov. 28. Dr. Chas. C. Berlin, local chairman.

Region I—Lebanon. Meetings at Town Hall, dinner at Golden Lamb Hotel. Wednesday, Sept. 25, Oct. 23, Nov. 27. Dr. N. A. Hamilton, local chairman.

Region J—Portsmouth. American Legion Hall. Thursday, Oct. 3, Nov. 7, Dec. 5. Dr. Ross M. Gault, local chairman.

Speakers at Opening Sessions



Sterling H. Ashmun, M.D.
Dayton



Homer D. Cassel, M.D.
Dayton



Berman S. Dunham, M.D.
Toledo



Myron D. Miller, M.D.
Columbus



Ralph M. Watkins, M.D.
Cleveland



Jas. G. Kramer, M.D.
Akron



H. M. Clodfelter, M.D.
Columbus



E. H. Baxter, M.D.
Columbus

The physician can help to plan the lives of these cripples so they may be rehabilitated at a minimum of expense. Importance of exercise to the child with heart disease.

Napoleon—September 19, Dr. Sterling H. Ashmun, Dayton.

Tiffin—September 25, Dr. Berman S. Dunham, Toledo.

Mansfield—September 18, Dr. Jas. G. Kramer, Akron.

Warren—September 18, Dr. E. H. Baxter, Columbus.

Cadiz—September 26, Dr. Ashmun.

Athens—September 26, Dr. Marion L. Ainsworth, Columbus.

Columbus—October 9, Dr. John A. Toomey, Cleveland. (Subject: The Heart and Acute Infectious Diseases in Children.)

Wapakoneta—September 26, Dr. Baxter.

Lebanon—September 25, Dr. Edward A. Wagner, Cincinnati.

Portsmouth—October 3, Dr. Bernard Schwartz, Cincinnati.



Robert F. Parker, M.D.
Cleveland

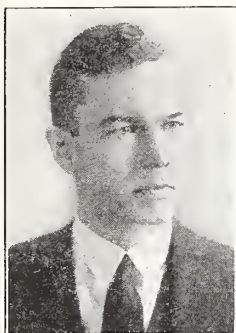


Marion L. Ainsworth, M.D.
Columbus

2. Meningitides in Children

The seeming increase in incidence of meningitis of various forms, including chorio-meningitis. Need for early differential diagnosis. How to recognize meningitis in the absence of rigidity. Prophylaxis of various forms. Public health problems associated with these diseases. Chemo-therapy has definitely improved the recovery rate in menin-

Regional Postgraduate Lectures



D. W. Heusinkveld, M.D.
Cincinnati



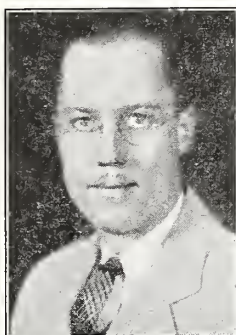
Leon Schiff, M.D.
Cincinnati



John A. Toomey, M.D.
Cleveland



Harry V. Paryzek, M.D.
Cleveland



Maurice A. Schnitker, M.D.
Toledo



Edward A. Wagner, M.D.
Cincinnati



Phillip T. Knies, M.D.
Columbus



Bernard Schwartz, M.D.
Cincinnati

gitis, although there is a considerable incidence of blindness, deafness, and mental retardation in recovered cases.

Napoleon—September 19, Dr. Ashmun.

Tiffin—September 25, Dr. Dunham.

Mansfield—September 18, Dr. Kramer.

Warren—September 18, Dr. Baxter.

Cadiz—September 26, Dr. Ashmun.

Athens—September 26, Dr. Ainsworth.

Columbus—October 9, Dr. Toomey.

Wapakoneta—September 26, Dr. Baxter.

Lebanon—September 25, Dr. Wagner.

Portsmouth—October 3, Dr. Frank E. Stevenson,
Cincinnati.

3. The Clinical Approach to the Positive Mantoux Test

Mass tuberculosis surveys among school children and in public health centers are now becoming commonplace. Many of the positive "reactors" are referred back to the family physician. It is expected that he will properly



Frank E. Stevenson, M.D.
Cincinnati

manage the individual and take the necessary steps to satisfy the family as to the significance of the test. Follow-up requirements. Proper balance between indifference and over enthusiasm is imperative. The value and limitations of tuberculin testing, the most efficacious methods in private practice and the clinical significance as related to present and future infection are discussed. Emphasis is placed on the reliability and practicability

of case finding methods in private practice. Controversial subjects are discussed impartially.

- Napoleon**—September 19, Dr. Homer D. Cassel, Dayton.
Tiffin—September 25, Dr. Myron D. Miller, Columbus.
Mansfield—September 18, Dr. H. M. Clodfelter, Columbus.
Warren—September 18, Dr. Robert F. Parker, Cleveland.
Cadiz—September 26, Dr. Cassel.
Athens—September 26, Dr. D. W. Heusinkveld, Cincinnati.
Columbus—October 9, Dr. Harry V. Paryzek, Cleveland.
Wapakoneta—October 24, Dr. Miller.
Lebanon—September 25, Dr. Phillip T. Knies, Columbus.
Portsmouth—October 3, Dr. Stevenson.

4. Management of Heart Failure in the Home

Types of heart failure found. Diagnosis when X-ray and electrocardiogram not available. Use of morphine, digitalis, aminophylline, and other sedatives. Blood letting. Posture. Simple method of measuring vital capacity and the use of diuretics when the vital capacity is decreased.

- Napoleon**—September 19, Dr. Cassel.
Tiffin—September 25, Dr. Ralph M. Watkins, Cleveland.
Mansfield—September 18, Dr. Clodfelter.
Warren—October 30, Dr. A. Carlton Ernstene, Cleveland.
Cadiz—September 26, Dr. Cassel.
Athens—September 26, Dr. Leon Schiff, Cincinnati.
Columbus—October 9, Dr. Paryzek.
Wapakoneta—September 26, Dr. Maurice A. Schnitker, Toledo.
Lebanon—September 25, Dr. Knies.
Portsmouth—October 3, Dr. Schwartz.

5. The Anemic Patient

What is it about the patient that should increase our suspicions that an anemia exists? Value of an accurate hemoglobin determination. Relative accuracy of the various methods. Value of a careful blood examination, when the cause of the anemia is not apparent. Treatment of acute hemorrhage for the first few hours and later.

Simple methods of blood transfusion. Diagnosis and treatment of congenital hemolytic jaundice.

- Napoleon**—October 10, Dr. S. A. Hatfield, Columbus.
Tiffin—October 23, Dr. J. M. Hayman, Jr., Cleveland.
Mansfield—October 16, Dr. Russell L. Haden, Cleveland.
Warren—November 27, Dr. Charles A. Doan, Columbus.
Cadiz—October 24, Dr. John N. McCann, Youngstown.
Athens—October 24, Dr. Albert F. Kuhl, Dayton.
Columbus—December 4, Dr. M. A. Blankenhorn, Cincinnati.
Wapakoneta—October 24, Dr. A. B. Brower, Dayton.
Lebanon—October 23, Dr. B. K. Wiseman, Columbus.
Portsmouth—November 7, Dr. Brower.

6. Deficiencies and Anemia

Diagnosis and treatment of pernicious anemia, and the simple iron deficiency anemias. Effects of sulfanilamide. Résumé of the drugs on the market for the treatment of anemias, with a discussion of the necessity of liver or iron. Usual fallacy of both. Deficiency complexes and anemia.

- Napoleon**—October 10, Dr. Hatfield.
Tiffin—October 23, Dr. Hayman, Jr.
Mansfield—October 16, Dr. Haden.
Warren—November 27, Dr. Doan.
Cadiz—October 24, Dr. McCann.
Athens—October 24, Dr. Kuhl.
Columbus—December 4, Dr. Blankenhorn.
Wapakoneta—October 24, Dr. Brower.
Lebanon—October 23, Dr. Wiseman.
Portsmouth—November 7, Dr. Brower.

7. Practical Uses of Sulfanilamide and Its Derivatives

Chemotherapy has advanced remarkably in the last few years. Following the introduction of sulfanilamide and its use in strains of hemolytic streptococci with marked results, the drug was used in other infections. Derivatives produced, such as sulfapyridine, have been very effective in infections in which the parent drug did not seem to have much therapeutic value. At present a number of these derivatives are being used experimentally with apparent success. The use of these drugs in systemic infec-

tions (gastro-intestinal, respiratory, genito-urinary), and wound treatment will be discussed from the standpoint of the infecting organism.

Napoleon—October 10, Dr. Clodfelter.

Tiffin—October 23, Dr. C. L. McKibben, Toledo.

Mansfield—November 14, Dr. Chas. T. Way, Cleveland.

Warren—September 18, Dr. Parker.

Cadiz—October 24, Dr. James H. Warren, Columbus.

Athens—October 24, Dr. C. C. Sherburne, Columbus.

Columbus—December 4, Dr. J. M. Ruegsegger, Cincinnati.

Wapakoneta—September 26, Dr. Schnitker.

Lebanon—November 27, Dr. Julien E. Benjamin, Cincinnati.

Portsmouth—November 7, Dr. Sherburne.

8. Modern Treatment of Pneumonia

Treatment of pneumonia from several angles: (1) Chemotherapy, sulfapyridine and its derivatives, method of administration, dosage, and contraindications. (2) Serum (antibody solution), results of this type of treatment, method of administration, dosage, and contraindications. (3) Combination of chemotherapy and serum. Combined use of the two treatments. Résumé of laboratory methods, typing and general management of the patient.

Napoleon—October 10, Dr. Clodfelter.

Tiffin—October 23, Dr. McKibben.

Mansfield—November 14, Dr. Way.

Warren—October 30, Dr. Ernstene.

Cadiz—October 24, Dr. Warren.

Athens—October 24, Dr. Sherburne.

Columbus—December 4, Dr. Ruegsegger.

Wapakoneta—October 24, Dr. K. V. Kitzmiller, Cincinnati.

Lebanon—November 27, Dr. Benjamin.

Portsmouth—November 7, Dr. Sherburne.

9. Complications of the Common Cold

Are colds preventable? Causative factors. Do nasal obstructions, chronic sinusitis, or infections of tonsils and adenoids play an important role? Allergic or vaso-motor rhinitis demands differentiation. A postnasal drip leads to a chronic cough and peribronchial infiltration. Discovery of the situation demands a search for hidden sinus infections. Prevention of colds by environmental and habit changes, as well as by

attention to the general physical condition. Treatment and contraindications. Vaccines? Vitamins? The danger of nasal oil drops. Colds may be the forerunner of serious complications.

Napoleon—November 14, Dr. Henry M. Goodyear, Cincinnati.

Tiffin—November 27, Dr. C. W. Engler, Cleveland.

Mansfield—November 14, Dr. C. E. Kinney, Cleveland.

Warren—October 30, Dr. Paul M. Moore, Jr., Cleveland.

Regional centers selected, and the counties comprising each region, follow:

Region A—Napoleon. Counties: Williams, Fulton, Lucas, Defiance, Henry, Wood, Paulding, Putnam, Hancock.

Region B—Tiffin. Counties: Ottawa, Sandusky, Erie, Seneca, Huron, Wyandot, Crawford, Marion.

Region C—Mansfield. Counties: Lorain, Medina, Ashland, Wayne, Richland, Morrow, Knox, Holmes, Coshocton.

Region D—Warren. Counties: Lake, Ash-tabula, Geauga, Trumbull, Summit, Portage, Mahoning, Stark, Columbiana.

Region E—Cadiz. Counties: Tuscarawas, Carroll, Jefferson, Harrison, Guernsey, Belmont.

Region F—Athens. Counties: Muskingum, Noble, Monroe, Washington, Morgan, Perry, Hocking, Athens, Vinton, Meigs.

Region G—Columbus. Counties: Union, Delaware, Licking, Madison, Franklin, Fairfield, Fayette, Pickaway.

Region H—Wapakoneta. Counties: Van Wert, Allen, Hardin, Mercer, Auglaize, Logan, Shelby, Darke, Miami, Champaign.

Region I—Lebanon. Counties: Preble, Montgomery, Clark, Greene, Butler, Warren, Clinton, Clermont, Brown, Highland.

Region J—Portsmouth. Counties: Ross, Pike, Jackson, Adams, Scioto, Lawrence, Gallia.

Cadiz—November 28, Dr. Fred W. Dixon, Cleveland.

Athens—November 28, Dr. James O. Beavis, Dayton.

Columbus—November 6, Dr. W. H. Evans, Youngstown.

Wapakoneta—November 28, Dr. Louis R. Effler, Toledo.

Lebanon—November 27, Dr. Russel G. Means, Columbus.

Portsmouth—December 5, Dr. Edward King, Cincinnati.

10. Childhood Ear Infections: Proper Treatment to Prevent Deafness

To recognize otitis media in small children requires a careful examination. Treatment of the acute and chronically discharging ear. Specific therapy. When should an ear drum be incised? Repeated acute inflammation of ears caused by incompletely removed adenoids, sinusitis or lymphoid masses blocking the Eustachian tube. Correction of other local and general contributing factors to prevent deafness. Loss of hearing follows repeated upper respiratory insults. The hard-of-hearing child is an educational problem who becomes an economic liability. Prevent deafness, it seldom can be cured!

Napoleon—November 14, Dr. Goodyear.

Tiffin—November 27, Dr. Engler.

Mansfield—November 14, Dr. Kinney.

Warren—October 30, Dr. Moore, Jr.

Cadiz—November 28, Dr. Dixon.

Athens—November 28, Dr. Beavis.

Columbus—November 6, Dr. Evans.

Wapakoneta—November 28, Dr. Effler.

Lebanon—November 27, Dr. Means.

Portsmouth—December 5, Dr. King.

11. Fractures and Pseudo-Fractures of the Spine

A careful history of the extent and direction of the injuring force and the position of the body at the time is important. The symptoms of pain and its reference should be noted. The past history of pre-existing conditions should be obtained. Physical examination should note pre-existing deformity, atrophy or paralysis as well as the deformity, spasm, tenderness and nerve involvement as the result of this injury. The X-ray examination should disclose all abnormalities and distinguish between true and pseudo-fractures as well as recent and old fractures. Treatment of fractures should be designed to reduce and immobilize when possible. A pessimistic prognosis may prevent recovery.

Napoleon—November 14, Dr. Ralph G. Carothers, Cincinnati.

Tiffin—November 27, Dr. Albert L. Bershon, Toledo.

Mansfield—October 16, Dr. Wallace S. Duncan, Cleveland.

Warren—November 27, Dr. J. D. Wilson, Columbus.

Cadiz—November 28, Dr. Edson J. Brown, Cleveland.

Athens—November 28, Dr. Joseph A. Freiberg, Cincinnati.

Columbus—November 6, Dr. D. M. Glover, Cleveland.

Wapakoneta—November 28, Dr. B. J. Hein, Toledo.

Lebanon—October 23, Dr. John W. Means, Columbus.

Portsmouth—December 5, Dr. Drew L. Davies, Columbus.

12. Emergency Treatment of Roadside Injuries

Roadside injuries in this day of modern rapid transportation present many problems in the way of emergency treatment. Suggestions as to first aid and proper emergency care of patient at scene of accident or in doctor's office, with special reference to (1) fractures; (2) head injuries; (3) shock; (4) internal injuries.

Napoleon—November 14, Dr. Carothers.

Tiffin—November 27, Dr. Bershon.

Mansfield—October 16, Dr. Duncan.

Warren—November 27, Dr. Wilson.

Cadiz—November 28, Dr. Brown.

Athens—November 28, Dr. Freiberg.

Columbus—November 6, Dr. Glover.

Wapakoneta—November 28, Dr. Hein.

Lebanon—October 23, Dr. Means.

Portsmouth—December 5, Dr. Davies.

Fees Increased and Curriculum Is Changed at Western Reserve

Western Reserve University has announced that the basic fee in its medical school will be increased from \$400 to \$500 for all classes beginning with the academic year of 1941-42. The increase is necessary to meet in part the diminished returns of endowments. Incidental fees remain essentially at the present level.

At the same time announcement was made that the medical school has decided to substitute required additional work in biochemistry, biostatistics, medical psychology, physiology, pathology and immunology for the optional work in the first year and several optional courses of the second year. Neuro-anatomy will be moved from the second year to the first year. The total number of required hours is increased from 850 to 1,017 in the first year, and reduced from 904 to 864 in the second year.

Do You Know - - -

Wendell L. Willkie, Republican nominee for the Presidency of the United States, was an associate member of the Summit County Medical Society, Akron, in 1924-26.

* * *

Membership in the Ohio State Medical Association totaled 6,312 on August 19, compared with 6,207 on the same date last year, and 6,388 on December 31, 1939.

* * *

The American Red Cross, acting at the request of the Surgeon General of the U. S. Army, has announced experimental plans for the promotion of a nationwide corps of volunteer blood donors which would become part of the national defense program, when and if needed.

* * *

Dr. Charles T. Kent, who graduated from Western Reserve University School of Medicine in June, has been selected by the faculty as Charles F. Hoover Scholar for 1940. Besides the honor, the scholarship carries a prize of \$350. It was founded by friends and pupils of the late Dr. Charles F. Hoover, professor of medicine at Western Reserve from 1909 until his death in 1927. Dr Kent is now an intern in medicine at University Hospitals, Cleveland.

* * *

The Cuyahoga County Tuberculosis Dispensary was recently opened in downtown Cleveland. Dr. Howard C. Stewart, tuberculosis co-ordinator for the county, is superintendent of the dispensary.

* * *

The Columbus Academy of Medicine has enrolled a number of physicians in each section of the city who have volunteered to respond to emergencies for the resuscitation squad of the local Fire Department. A physician is always called when inhalator service is required. If the patient has no family doctor, or if he is not available, one of the physicians on the volunteer list will be called.

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Dr. Edward J. McCormick, Toledo, former Grand Exalted Ruler of the Elks, has been named a member of the new national defense committee of that organization.

* * *

In accordance with the recent action of the House of Delegates, the Board of Trustees of the American Medical Association has appointed a Committee on American Health Resorts, for the purpose of collecting and compiling information on so-called health resorts.

The Cleveland Museum of Health and Hygiene publishes a daily pollen count in the local newspapers.

* * *

The Lucas County Chapter of the National Foundation for Infantile Paralysis, Inc., has presented a resuscitator to each of the eight general hospitals in Toledo.

* * *

Dr. James A. Doull, Cleveland, professor of hygiene and public health, Western Reserve University School of Medicine, left August 5 for a six-week trip to the neighboring islands of Puerto Rico and St. Thomas, in the West Indies, to investigate the possibility of launching a new attack against leprosy. Dr. Doull is a chairman of the Medical Advisory Board of the American Leprosy Foundation.

* * *

Stating that serum now available for Pasteur treatment is of greater efficiency, Hamilton County Commissioners have issued a rule restricting the maximum number of treatments to 14 instead of 21 as previously permitted. Serum is furnished by the county, and physicians will be paid \$1 for each treatment. Where others in the same family must be treated at the same time, \$10 additional is allowed for each.

* * *

State and federal agencies throughout the Ohio Valley, from the upper reaches of the Allegheny to the headwaters of the Tennessee and Cumberland Rivers, are driving toward a January 1 deadline for completion of their study of stream pollution, its causes, economic effects and its cure.

* * *

The Mahoning County Tuberculosis Sanatorium has adopted the "rotating staff" system, with 79 physicians enrolled. A general staff of 30 physicians, working in groups of five, has been named. Each group will be on service for two months. The remaining 49 are specialists, some serving definite time limits, with relief from their associates, and others working on call for special cases.

* * *

Recent grants of the National Advisory Cancer Council for research in cancer include \$5,900 to the American College of Surgeons.

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Governor John W. Bricker has proclaimed the week of September 8 Dental Health Week in Ohio. The Centennial Conventions of the American Dental Association will be held in Cleveland, September 9-13.

An Experiment in Budgeting Against the Cost of Illness

J. A. HANNAH, M.D.

Toronto, Canada

EDITOR'S NOTE: One of the feature sessions of the 94th Annual Meeting in Cincinnati, May 14-16, 1940, was the Conference on Medical Service Plans on Tuesday afternoon, May 14. The principal speaker was Dr. J. A. Hannah, managing director of Associated Medical Services, Inc., Toronto, Canada, one of the outstanding voluntary health insurance projects being operated by the medical profession. The text of Dr. Hannah's address and excerpts from the question-answer period which followed are presented by The Journal for the information of members who did not attend that most interesting session. The conference was arranged by the Committee on Medical Service Plans.

MR PRESIDENT and fellow-practitioners: It is always pleasant to be invited to meet members of the medical profession, but more especially so when the occasion affords the opportunity of speaking about something in which one has been interested for some eight years. During the past three years my full time has been devoted to the subject of health insurance, trying to do something practical to bring the profession in Ontario to an awareness of their duty and responsibility toward this social problem which has become as important as our scientific advances.

Let us make no mistake! Only in so far as we as a profession know the problem of health insurance and are willing to cope with it, will there be any form of satisfactory answer. It is suicide for us to allow laymen, political or otherwise, to gain control of this situation. This we have found through our experience in hospital work. Hospitals are no longer the servants of physicians, as originally intended. The servant has become the master, to the detriment of both profession and public.

MUST ASSUME RESPONSIBILITY

This problem never has been, nor will it ever be, satisfactorily answered until the profession has assumed its full responsibility, not only in regard to practice, but also in relation to its economic adjustment.

If I can but make this audience realize that we have been idly frittering our birthright for a mess of pottage, I will feel that our contacts have not been in vain.

I would like for an hour or so to take you with me through a very tangled maze of developments in Ontario which has led up to my presence here today. In so doing it may be that we can learn something of the responsibility of the profession in relation to this tremendous problem of health insurance in America.

LATE ARRIVAL OF DEMAND IN AMERICA

As early as 1882 European countries felt the urge for socialized medicine, and since that time

some 30 countries have adopted insurance in one form or another. There are several reasons why we in Canada and the United States have not found it necessary or convenient to socialize the practice of medicine. (1) Our populations have for the most part been scattered over large areas. This sparsity has rendered it difficult to systematize our economic methods or the public to become aware of the needs of their fellow men. (2) At the same time our standard of living at its worst, has been higher than that of the masses in Europe. (3) This, combined with the fact that there has been a virile rugged individualism present, coupled with many other factors, has delayed the demand for social medicine until the recent depression which, like our Winter, seems so loathe to leave us.

REASONS FOR PRESENT DEMAND

Factors other than the "depression" have also, however, been at work bringing about a demand for a change in our medical economy.

(1) Every advance in scientific knowledge brings with it its increased cost in application to the patient. The discovery of insulin, despite all its benefits, adds to the accumulating cost of medicine. The rapidity with which expensive X-ray equipment becomes obsolete adds to costs, despite its manifold benefits to humanity. However beneficial, such attentions do add to the cost, and the ever increasing difficulty of meeting it either from income, taxation or philanthropy. The only apparent diminishing entity has been the income of the physician who has assumed a larger and larger proportion of the cost of medical care without remuneration.

(2) Another factor contributing to public demand has been the change in our general economic standards and methods. It used to be accepted as good practice to save your pennies to buy the necessities. Now it seems to be accepted practice to buy the luxuries and pay as you can (or perchance: if, as and when they catch you). It works. There is one car for every five people in Ontario, despite the fact that 94% of earners have incomes of less than \$3000. These same

EVERY OHIO DOCTOR SHOULD READ THIS ARTICLE!

BECAUSE:

The question of establishing voluntary, pre-payment medical care plans is one of great current interest in Ohio.

In it, Dr. Hannah tells how a system of medical care on a voluntary pre-payment basis has been operated successfully by the medical profession of Toronto, Canada.

It suggests what could be done in some communities in Ohio, where there is a need and desire for a medical care plan for low-wage earners, if enabling legislation which will be sponsored by the Ohio State Medical Association is enacted by the General Assembly when it convenes in January, 1941.

WATCH FOR ARTICLES ABOUT THE ENABLING ACT—WHY ONE IS NEEDED—WHAT IT WILL PROVIDE—WHAT MUST BE DONE TO PROMOTE ITS ENACTMENT—IN FORTHCOMING ISSUES OF THE OHIO STATE MEDICAL JOURNAL! READ BULLETINS YOU WILL RECEIVE DIRECT FROM THE ASSOCIATION ON THIS SUBJECT! CONSULT MEMBERS OF THE COUNCIL AND OF THE COMMITTEE ON MEDICAL SERVICE PLANS FOR DATA!

people also have their over-stuffed furniture, radios and other luxuries.

(3) In contrast with this economic revolution in regard to purchase of necessities and luxuries, medical economy has gone on its own way, believing that nothing could or should be done about it, with the result that medical care has been neglected while the profession find an ever increasing hostility toward the so-called "high cost of medical care". It is an interesting commentary on our methods that no one complains about the high cost of smokes, cosmetics, or motion pictures; yet there is as much or more money spent on these commodities as on medical services. Why? Because, if a package of cigarettes is finished, another may be bought for a quarter or a dime. If neither is available, our friend will share his and consumption continues to the profit of the tobacco combine.

NOT SO THE COST OF MEDICINE!

Not so the cost of medicine! While our client remains well he may contribute nothing to the maintenance of either physician, hospital, nurse or equipment. When he does fall ill he must pay not only for his illness but also for his preceding period of health. The members of the profession and the equipment must be available in health as well as illness. To add to the general confusion, illness impairs earning capacity and no one, (not even the physician) can guess when the illness will occur, or what the magnitude of the bill will be.

Under such conditions it is little wonder that

there has been a persistent and steadily increasing demand for some method of budgeting against the cost of medical care, both from the public and the profession. Let us make no mistake if we who know something of the intricacies and intimacies of practice do not meet the situation; then others who are less well informed but as well intentioned will, and all will be subject to a period of dissatisfaction and confusion, and progress will be impeded scientifically as well as economically.

IMMINENCE OF SOCIALIZED MEDICINE

Until recently it was not unusual for certain sections of the profession to insinuate that such arguments were a figment of the imagination, and if the proponents belonged to the profession a more sinister meaning was attached. The facts have become too apparent and concrete to be denied any longer. In Canada, British Columbia has an act on her statute books to implement health insurance. The recent Minister of Health of Alberta, the Honorable George Hoadley, has indicated many times, that had his government been returned, health insurance would have been an accomplishment. Saskatchewan has had a form of municipal practice for some years. Ontario has had legislation written on at least one occasion to bring down, but for some reason has not done so.

Recent events in the U.S.A. are too fresh and obvious to require comment from me. I will make only one comment on your country's projected plan: the present estimated contribution

from all sources will prove but a mere pittance of what the projected plan will eventually have cost.

In both the U.S.A. and Canada there has been an ever increasing number of voluntary plans coming into effect, particularly hospitalization plans. Here again, unless carefully guarded, lies a menace to the profession. At the annual meeting of the American Hospital Association held in Dallas, Texas, the New York Hospital plan succeeded in getting a resolution through the convention giving the plan the right to provide their ward subscribers with medical service. Once again the profession is on the verge of surrendering more of its birthright and becoming even more of the hand-maid of institutions originally designed to be our helpmate.

COMMERCIAL SCHEMES

Add to the foregoing the evils of lodge practice, some forms of industrial medicine and mercenary forms of group practice and there appears to be a formidable array of encroaching forces making for the destruction of medical practice as it has been known and handed down through the years. If each in turn be carefully analyzed it will be seen that they are based on purely economic factors, with little or no regard for that intangible something which raised medicine above the ranks of both a trade or a profession and which combines both into an art, the tools of which are human understanding, the laws of which know only the needs of human ailment, whether they be physical, mental or spiritual. It knows no race, creed, nationality or social strata. Such is the heritage which we must protect.

RESPONSIBILITY OF THE MEDICAL PROFESSION

How shall we meet this challenge? Surely not by any attitude of *laissez faire*, hush-hush or sterile criticism. It must be met in the same manner as we have met our manifold research problems in our scientific field. Some of us must brave the taunts of our so-called economic experts to the point of venturing into research on the subject.

Who better to do this than the profession? In my short experience it has become apparent that no one knows what the problem involves. Statisticians, actuaries and insurance brokers grope hopelessly in their lack of understanding of the problems of medical practice. About the time they succeed in getting two plus two to equal four economically, it becomes apparent that for some reason or other a physician may have to visit his patient, not to give him a pill or nostrum, but simply to tell him a funny story to prevent his tailspin ending in a crash of deep depression.

Now that "funny story" has no symbol in the

formula of two plus two equals four, but it is a real factor in both treatment and cost. So the juggler of figures confounds his confusion and the plotter of graphs finds his line ever deviating from its path of virtue and rectitude.

This is a research problem to challenge the best brains within our ranks. From among ourselves we must develop researchers who can produce results such that confidence will be inspired in our professional brethren for these medico-economists. We have specialized almost ad nauseam in other branches of medicine, but each feels competent to deal with his own and the public's economy in relation to medicine.

Nor will it do for us to regard this particular "specialty" as something beneath professional dignity. No man, however astute, brilliant or assiduous, can ever comprehend the magnitude and intricacies of this problem, unless he first be trained in the profession and have actual experience in its practice. I, personally, cannot depreciate sufficiently this ever growing tendency of placing non-medical men in executive positions in our hospitals and medical societies. These are positions which should and must be filled from among our own ranks. Until it is done we can expect a continuance and extension of non-medical control over the profession to the ever deepening detriment of medical practice and patients alike.

In short: the profession must recognize the full implications of its responsibility and give leadership. Our problem permits of no alternative.

HISTORY OF INSURANCE IN EUROPE

How Shall We Begin?—It would be foolish to disregard all the years of accumulated experience of the European countries, as well as sickness and accident insurance companies. There is something to be drawn even from lodge and industrial practice. Every research problem has its negative and positive values. Those of you who have done research will appreciate the value of the 90% negative results in any such problem.

It is not sufficient to regard any negative result as being detrimental to the progress of the problem in hand. Because we may not like the National Insurance Act of Great Britain, or state medicine as in Russia, does not mean that they have nothing to offer for our guidance. Because the Danish system may appeal to us, it does not mean that we can transplant it to America and expect all its benefits to become immediately apparent. Every process is a growth, and every growth changes in direct proportion to its age, until such time as rigor mortis sets in. The best anyone can do is to eliminate, as far as possible, those factors which appear to give rise to decadence.

So it was that those of us in Ontario, when

we began to think about this problem, began our researches by a study of every form of health insurance we could find. The three most fruitful sources were: (1) The National Insurance Act of Great Britain; (2) various other voluntary and industrial plans for both hospitalization and medical care on both sides of the Atlantic, (in addition, the study by The Committee on Cost of Medical Care from the American Medical Association also proved useful); and (3) somewhat later, after we had begun activities, we discovered that the Danish plan had much to offer to a democratic system.

BROAD PRINCIPLES

This is neither the time nor the place to go into detailed discussion in regard to any of these systems or studies, but some broad principles may be stated. First, and most important: no plan ever came into existence in a finished and satisfactory form. All were found cumbersome and unsatisfactory in their initial stages. The National Insurance Act of Great Britain was instituted in 1912 and was a source of constant irritation, difficulty and financial worry, until approximately 1926, some fourteen years later. It was not until October, 1937, that it received sufficient support from the British Medical Association that they inserted quarter-page advertisements in all the daily papers advocating health insurance for every member of the nation. In the meantime, there arose continuous difficulties in regard to practice and finances.

The Danish system was instituted in 1892 as a voluntary plan, under the control of the profession. In twenty years 70% of the population came under the system, at which time the government began to use coercion on the remaining 30%.

Both continue to grow and improve. The most important principle to grasp is the fact that although the British plan was governmental and the Danish voluntary, each has been and continues to be a process of growth, each passing through an early stage of irritation requiring adjustment.

The second principle which becomes apparent is that no plan offers any degree of satisfaction until the profession establishes within itself such discipline as will permit of free choice of physician. It must, however, be noted that choice of physician presupposes a very real disciplinary control by organized medicine over its individual members. Liberty of choice cannot be permitted the public if a small percentage of the profession is permitted "license" in regard to charges and services rendered. The same discipline will be established in regard to the public when the profession has established the ability to control abuses. I shall endeavor later to illustrate how we have set up this control in Ontario.

The third great principle which becomes appar-

ent from our studies is: that no plan ever becomes really successful until the profession recognize their responsibility and assume leadership. An attitude of critical indifference intensifies a sense of injustice among both the profession and public and leads to ever increasing coercion by Governments over the profession. An attitude of helpful understanding leads to mutual cooperation.

Nothing can, however, be attained by subservience on the part of the profession. Just as the patient awaits instructions from the physician of his confidence, so the public await the leadership of the profession.

A fourth and equally important fact becomes apparent from Government controlled plans. Every such plan has started from a purely economic point of view. Lloyd George won his mandate from the British public in 1911 on the political battlecry of "ninepence for fourpence". In British Columbia, the government first set the economic mould of a little better than \$5.00 per annum for an almost complete medical service. Such a basis for consideration is absurd.

It will become apparent in what manner these principles affect the establishment of a proposed plan in America as we unfold the actual steps taken in establishing Associated Medical Services, Incorporated, in Ontario.

APPROACH TO THE PROBLEM

In approaching this problem it would appear that there are three main methods by which we may come to our goal: (1) by legislation; (2) as an ordinary business project; and (3) through co-operation of all interested parties.

The Legislative Approach—A legislative act is the written, considered opinion of the party in power in regard to any particular problem. The act may be conceived and drafted with every good intention and may contain what appears at the moment to be the best arrangement and regulations possible. Having set its opinion in writing no political body can afford to change that opinion with any degree of alacrity, even if it were possible to convince sufficient members.

In addition, it would appear that there can be no gradual period of development either in growth or experience. Up to the moment such an act becomes effective there would be no insured; immediately following its effective date there may be hundreds of thousands or even millions under its administration. Try as we will, satisfactory provision cannot be made for its administration. Inexperience will give rise to mistakes and mistakes on the scale of hundreds of thousands and millions are costly.

Again, who among the profession or the public care what the act is or stipulates during a period of illness—the patient must be served and the act be hanged. The very inelasticity of well-inten-

tioned acts render them impractical in regard to medical practice except in so far as they are purely enabling. The inherent dangers of political control have been all too manifest in the mental hospitals in both the U.S.A. and Canada to need further comment here.

As a Business Project—The second approach is through the usual channels of business. Business methods and economic laws must be observed, except that the experience of sickness and accident insurance companies has proven that the profit motive destroys the effectiveness of this form of insurance and fails to meet the needs of illness. Any portion of illness which is not profitable (and which is) to the insuree is either not covered or excluded from the policy at the first opportunity. The profit motive has stipulated that the male wage earner can be insured at half the cost of the female earner. The male adult in the family is profitable and therefore can be insured. The wife and children are not profitable, therefore cannot be covered.

Illness is no regard of persons: male or female, young or old, healthy or unhealthy, rich or poor. Therefore, the profession can have no truck or trade with any plan which does not aim to meet the cost of illness as we find it in the family units, without regard to whether there is profit to any shareholder.

We have, however, a very vital interest in how such services can be paid. Therefore, it becomes imperative that we observe the law of supply and demand. Let us not, however, be deceived. No amount of government patronage out of taxation can remove any portion of the cost to the public or meet the public's responsibility, save only in so far as it meets its fair share of the cost of the indigent or the near-indigent.

Cooperation—Realizing these factors, and in the light of the foregoing studies, the medical profession in the province of Ontario set about the development of our answer to this problem. From here on we shall deal with the formation, organization and growth of Associated Medical Services, Incorporated, in Ontario.

In 1930 I became a member of the Ontario Civil Service Association. Shortly after, the Association became interested in some form of health protection for its members. Consideration was given to hiring a staff of physicians and making a contract with some hospital to give service. This, however, did not appear to me to provide the type of service desired and so I was appointed to a committee to report back with a plan which might prove to the liking of both the Civil Servants and the medical profession. This was done at the annual meeting in 1933. The committee was given an appropriation and continued its studies, most of which have already been given.

At the annual meeting in 1934 the Association

gave their approval to the plan which later developed into Associated Medical Services. Among other principles laid down were the following: (1) that the choice of physician was desirable; (2) that the medical profession should control the method of practice; and (3) that we would accept the Ontario Medical Association's schedule of fees as being fair and proper.

Such proposals naturally presuppose the cooperation of the profession, and so it fell to my lot to approach the Academy of Medicine in Toronto, of which I have been a member for some years. The Academy preferred to refer the matter to its parent body, the Ontario Medical Association, which was done at their annual meeting in 1936.

PLAN IS APPROVED

Now it is of interest that the Ontario Medical Association had been studying the problem of compulsory health insurance under the able chairmanship of Dr. W. S. Caldwell. A resolution was passed favoring the principle of a voluntary plan and a committee set up to study the institution of trial areas in the province.

On January 14, 1937, the insurance committee delegated authority to five of its members to:

1. Draft a constitution and by-laws.
2. Place these before the Board of Directors of the Ontario Medical Association.
3. Ascertain the cost of instituting the plan.
4. Obtain the necessary finances.
5. Take out a charter and go into operation.

Ten days prior to February 23, 1937, the executive bodies of the Ontario Medical Association had the constitution and by-laws in their hands and at their meeting on that date they not only approved of the setting up of the plan but gave an initial grant of \$5000 for the institution of the plans.

It is of interest to note that unanimity did not prevail. The profession in the city of Windsor insisted that the plan should be started on a group industrial basis, whereas Toronto was prepared to start with single individuals. It is of further interest that Windsor has not gone into operation yet*, while Toronto has 16,000 subscribers, and branches in Ottawa, Oshawa, Hamilton, Woodstock, Peterborough, Kitchener, and St. Catharines.

Out of the \$5000, Windsor got \$1200, which latter sum was advanced by the Civil Service Association. It is to be noted that \$5000 constitutes the total amount of money advanced for organization. All our expenses, administrative and medical, have been met from income.

Following this degree of approval, the Civil Service Association decided to cast their lot with the province-wide plan, and a charter was secured

*Windsor Medical Services, Incorporated, announced the inauguration of their plan on July 8, 1939.

from the Ontario Government on April 9, 1937, under the name of Associated Medical Services, Incorporated.

OPENED ON JUNE 1, 1937

On June 1, 1937, we opened our offices at 11 Queen's Park, Toronto, in space granted rent-free by the Government.

At the close of 1937, after seven months' operation, we had secured 733 subscribers and were paying most of our overhead, as well as showing a surplus of \$1722 on our medical reserve account.

During 1938 our subscribers rose to 4020—five and a half times the number with which we ended 1937. At the same time our reserve increased almost eight times, leaving sufficient funds to carry our previous experience for three months without income, if necessary. We closed the year with a surplus of \$160 in our administrative account and \$11,000 in our medical reserve account.

The figure of 12,762 subscribers as of December 31st, 1939, was triple that at the end of 1938. Medical Reserve totaled \$29,217.03, Administrative Surplus \$5983.29.

During the first four months of the current year we added 4112 subscribers. The Medical Reserve increased to \$38,977.81 and the Administrative Surplus to \$11,342.41.

SERVICES AND REGULATIONS

You will, no doubt, be interested in knowing the services we give, the subscription we collect, and the schedule of fees we allow our participating physicians. The following are extracts from our regulations:

The Corporation shall provide to the subscriber the following benefits upon the terms and under the conditions as set forth in the regulations. The benefits to the subscriber shall be limited to services and treatment to be provided by a participating physician in any branch area, provided that the Corporation will in their discretion defray the whole or any portion of the expenses incurred in the treatment of the subscriber outside such branch area.

1. Medical Benefits

Medical benefits shall be deemed to include:

- (a) All medical attention necessary for diagnosis and treatment of illness, whether in the home, office or hospital, including accidents. Obstetrics shall also be included provided that the obstetrical patient's husband must also be a subscriber and both must have been subscribers for ten consecutive months before delivery.

The cost of hospital care at the rate of \$1.00 a day will be provided for the child up to 14 days after birth, after which time application may be made to include the child as a dependent in accordance with the regulations.

- (b) Such X-ray services as shall be deemed necessary for the proper diagnosis and treatment of the subscriber.

- (c) The cost of anaesthetics and their administration.

2. Surgical Benefits

Surgical benefits shall be deemed to include:

All procedures and practices usually considered within the scope of a competent surgeon but shall not include the treatment of conditions not detrimental to bodily health or interfering with function.

3. Consultant Service

A consultant may be called through the Branch Medical Officer, either at the request of the participating physician or the subscriber.

4. Hospital Benefits

Hospital benefits shall be deemed to include:

- (a) Available semi-private accommodation in a hospital approved by the Corporation, the cost of which does not exceed \$3.50 per day.
- (b) Cost of anaesthetics and operating room.
- (c) Such medicine as shall be required while in hospital not to exceed the sum of fifty (50¢) per day.

5. Nursing Benefits

Nursing benefits shall be deemed to include: such nursing as shall be deemed necessary by the Branch Medical Officer.

6. Sanction for Service

Where the services required are such as are not usually supplied by a general practitioner, the approval of the Branch Medical Officer is required. For example: Consultations, major surgery, technical diagnostic procedures, X-ray, hospitalization, nursing care, etc.

7. Total amount of service paid for

The Corporation shall be liable for the expense of service under this contract to a sum not exceeding Eight Hundred Dollars (\$800.00) in any consecutive twelve month period and for each subscriber or dependent.

Services excluded

- (1) The Corporation shall not be responsible for the care of, or any expense in connection with the care of institutionalized epilepsy, institutionalized mental diseases, institutionalized feeble mindedness, institutionalized tuberculosis, nor for venereal diseases nor any disease or injury arising from any accident covered by the Workmen's Compensation Act, nor the care of any subscriber suffering from any disease or injury arising from any condition for the expenses of which the Ontario or Dominion Government or any other body is responsible.
- (2) The Corporation shall not be responsible for any expense incurred by reason of any condition which existed at the date of application of the subscriber.

Family Group Rates of Subscription

In order to obtain the family group rate, all members of the immediate family must make application to become subscribers. If the Corporation declines one or more applications from the group the family rate shall still apply, provided all of the accepted members of the family remain subscribers.

The subscriber shall pay or cause to be paid

on his behalf to the Corporation in advance monthly subscriptions on the following scale:	
For the subscriber.....	\$2.00 per month
For the first dependent of the subscriber	1.75 per month
For the second dependent of the subscriber.....	1.50 per month
For the third dependent of the subscriber.....	1.25 per month
For the fourth and each additional dependent of the subscriber	1.00 per month

Individual Subscription Rate

The individual rate of subscription shall be \$2.00 per month per subscriber and shall be the rate in all cases where the Family Group Rate does not apply.

Waiting Period

The subscriber shall be entitled to benefits herein provided from the date set forth upon his identification card (Form No. 5) which shall be two months from the first day of the month nearest the date of his application.*

Schedule of Fees

The schedule of fees allowed shall be that designated by the Ontario Medical Association and in force at the time the service is rendered.

In arriving at a basis of service and its cost, we have considered it best to set out the services required by an individual in one year* and set over against it the cost on the basis of the minimum schedule of fees as set forth by the tariff of the Ontario Medical Association. This appears as follows:

Home calls—1 per person per year	\$ 3.00
Office calls—1.5 per person per year at \$2.00	3.00
Surgical operations—0.08 per person per year at \$50.00.....	4.00
Consultations and specialist cost per person per year.....	4.00
X-ray and laboratory work.....	1.00
Hospitalization—1.3 days at \$3.50.....	4.50
Nursing—0.05 days at \$5.00 per day.....	2.50
Administration	2.00
Total	\$24.00

INDIVIDUAL AND FAMILY COSTS

These services cover obstetrical and surgical attention under controlled conditions, and the cost totals \$24.00 per person per year in the individual situation. Because of the reduced incidence of service required in the family situation the cost drops twenty-five cents for each dependent to a minimum of \$1.00 per person. In the average family of four this costs \$6.50 per month, or 5-12/32¢ per day per person. This is less than is spent annually by such average family on smokes, cosmetics, or other luxuries.

Personally, I am a firm believer in democracy

and to me democracy means not only personal liberty, but also personal responsibility. Every time we shirk our personal responsibility by handing it over to governments, just so often do we dole out a corresponding portion of personal liberty. If we do not cease from this rabbled clamour of shouting "Why doesn't the Government do something about it?" I am of the opinion that we are very close to the day when Governments will not be asking us "Why don't you do something about it?", but they will be telling us "what to do about it".

I believe we can answer the problem better in our own way through an evolution of gradual growth; raising a structure flexible to our needs; growing into the shape and moulded to the need of medical service; carrying with us all that is good out of the past; disregarding useless and dead wood; and adhering ever and always to the most sacred of all, The Hippocratic Oath.

Question—What is your eligibility, your grade of eligibility for membership? Is it definitely based, in other words, on a low income group and how do you determine that? Secondly, after your experience during these past two or three years with this, do you feel that these people are getting better medical care, are their health standards higher as a result of their participation in this plan?

Dr. Hannah—We have no income group limit. I have here a survey of 1030 applicants who have made application to become subscribers. We insisted starting about the first of February that every individual state his income group. Out of 1030 answers from heads of families, not including dependents, the 1030 represent about 290 individuals under \$1000 or 28%. That is 28% of our subscribers have incomes of less than \$1000. Under \$1500, 55.70%; under \$2000, 74.5%; under \$3000, 91.5%; under \$4000, 95.7%; under \$5000, 99.1%; and over \$5000, 0.9%.

Will they get better service? Well, they are at least getting earlier medical service. It is going to be very difficult in the short space of time to evaluate whether or not they are getting better service because you can never tell if an appendix does not rupture whether it would have ruptured or not if we had not been in the field and so you can't evaluate that factor. We do, however, know that there are some very grateful people among the people with fifteen to twenty dollars weekly income.

A girl, for instance, gets an acute obstruction and has to be operated on at once. Her salary was \$15.00 a week. You can guess what would have happened if the A.M.S. had not been there. What did happen? The surgeon got \$100.00, the anesthetist got \$15.00, the general practitioner in charge of the case got \$25.00—diagnostic fee plus \$15.00 assistant fee—making a total of \$140.00. Her hospital bill was paid and she required nursing. That is what happened in one case and it has happened in many.

Question—Would the doctor clarify the question whether hospitalization is under a separate plan or included in the cost of medical service?

Dr. Hannah—Included in the schedule of services that they pay for is the sum for hospitalization. If you like I have the distribution:

*To this has been added "except in the case of removal of tonsils and/or adenoids, in which case the waiting period shall be twelve months from the date of application."

*The figures for service are the result of wide study and research over a period of four years and are drawn from sources too numerous to list.

of our funds over last year, that is for the year 1939 in percentages. We spent last year a total of \$109,000 on the group that we had on surgery. Of course, some had been on twelve full months and some only one month. We spent for doctors' fees 70.82%, nursing 6.13%, hospitalization 22.59%, and drugs .46% so that would give you an idea of how our fund is expended.

Question—I understood you to say so many calls were figured on or expected, so many house calls, so much for hospitalization. How did that score up with actual experience?

Dr. Hannah—I will have to speak from memory. As you remember, we estimated we would have one home call per person per year and so on. On our survey of 1938 we were out approximately 10% on some items. It might be one way or the other. We just recently finished our statistics in that regard for 1939 which did not vary more than 2% from what our experience had been in 1938. I think there is an answer to your question in part by the fact that since we went into operation on June 1, 1937, we have built up a reserve of approximately \$30,000 for future use. In other words, we have carried on, paid for our services, set aside a sufficient sum to take care of an epidemic. On the basis of our past experience that epidemic would have to double our medical cost for from four to six months before our reserve would be completely wiped out.

Question—May I ask what the administrative costs are at present?

Dr. Hannah—Our administrative cost for last year including the cost of acquisition (which are two distinct things) was 24%. It cost a great deal of money to go out in a community and get these people in. For instance, as one item alone, we have around the City of Toronto close to 200,000 application forms. It costs to print those forms. Now that we have that administrative cost from the two months' waiting period which is required for the individual, they pay their subscription for that time and we are allowed 15% of the third and subsequent subscription for administration.

I should point out that during the year we opened, equipped, and staffed I think it was seven offices. Now in those seven offices we had a total of approximately 3,000 subscribers. It would be better to say that we paid out that money to secure 3,000 subscribers for the length of time those offices were open.

Our administrative costs have not yet been stabilized but we have lived within our budget and built up a reserve as I indicated of approximately \$5000 at the end of the year on our administrative end. As the number of our subscribers increases in our various offices that administrative cost will automatically go down and has done so.

Question—Do the doctors guarantee to carry on the services if for a particular length of time the funds go into the red like the hospitals do in group hospitalization?

Dr. Hannah—No, there is no guarantee from any source. We started this project with the idea of making it economically sound and I do not believe that any organization can be economically sound if it has to depend in cases of emergency on the generosity of either philanthropy or the good will of the profession.

I was asked that question when the matter was being discussed in the Academy of Medicine in Toronto and the speaker or man who asked the

question said it seemed to him there was only one of two things that could be done if such a thing should occur, either the public be asked to pay more money or the profession asked to take less. I pointed out there is a third thing that may be done and that third thing is to put us into the hands of receivers. Now, of course, we hope that if we have been of sufficient benefit to the public whom we serve and the profession, if such an emergency should arise, that we could put our problem before them and they would probably say of their own volition what they wanted to do, but if we had not been of sufficient service to either the public or the profession to warrant them giving that of their own free will, then I would want them to put us in the hands of the receiver and let us go out of business.

Question—What is the expense in the field for collecting subscriptions from subscribers? Is there any special method by which that is done?

Dr. Hannah—We state in our regulations, that if any subscription is unpaid and if paid monthly, the subscriber must come in and pay us on the first of the month without notice. We send them no notices. Now, as an example, in the month of March, on the fifteenth of the month out of 120,000 accounts due us we sent out 308 reminders that they had not paid us. On the twenty-ninth of the month we cancelled 13, all the balance were paid.

For the actual cost of administration—I have not broken it down into what it cost to collect as compared to what it cost to administer the services which we rendered but the actual cost of administering to those people who were all being serviced, including administration and collections, was between six and seven per cent last year.

Question—How do you prevent the misuse of service, both from the standpoint of the profession, that is unnecessary surgery, or from the standpoint of the individual from unnecessary calls?

Dr. Hannah—In regard to surgery, we insist that there be a consultation before every major operation. No operation can be performed without a consultation being held. We reserve the right to insist that one of those opinions shall be acceptable to ourselves. We have only had to insist in about three cases that the opinion asked for be changed, that is that what the man asked for be changed to satisfy ourselves.

In regard to the provision of abuses by subscribers, he gets away with it for a time but every service rendered to a subscriber is entered on his medical history sheet and the amount of the service he gets for it and what it costs. If at the end of three or four months or six months that individual's card gets filled up with diagnoses such as pain in the shoulder, neuritis, insomnia, so on and so forth, he is politely told that we want him no longer. We are prepared to pay him for a consultation if necessary. If his own physician thinks that is necessary it is carried out. If such a consultation indicates that he had no need for a consultation if the diagnosis is obvious, that individual is told we don't need him as a subscriber any more. We have had to drop probably fifty such individuals.

Question—In regard to records, how much red tape does the doctor have to put up with?

Dr. Hannah—You are asked to put in the name

of the patient, the dates of the calls, your diagnosis and any special treatment that you gave. If the doctors, and there is a group of them that review the accounts, feel that any further information is wanted, we call the doctors up and ask them.

Question—How many subscribers have you lost, that is, patients have discontinued the service?

Dr. Hannah—Our loss from all sources, including declined applications, moving away from the community, nonpayment and dissatisfaction, has been about ten per cent.

Question—In inaugurating a plan how can you go about obtaining the subscribers? Do you find it necessary to sell the service through lay salesmen or how do you go about that?

Dr. Hannah—We first of all had the Civil Service group to work on and they were pretty well educated. We educated them through their own magazine. We were fortunate to have one of the papers that took us up as a pet and we were invited to speak to various clubs. We first endeavored to take on salesmen on a commission basis. We found that that wasn't satisfactory. They would bring the people in more to have the commission than to keep them on as subscribers and they were telling all the good points and forgetting all the bad points, so we stopped that.

At the present time we have approximately six or eight individuals who are on full-time salary with us to follow up inquiries that come into our office. We have three telephone lines in our office and I can assure you they are kept busy. We get from forty to fifty calls daily on the telephone. We get invitations to speak at Rotary Clubs, service clubs of all kinds and so our flow of inquiries keep our people busy in that regard. We stress with those individuals that this is not a service that can be sold and must not be sold but it must be bought by the individual. If an individual is not interested then we stop. If we find out that one of our solicitors or representatives insists on following them up when they don't want to be, he no longer has a job.

Question—In satisfying the Advisory Board that the operation is necessary in consultation, who chooses the consultants? In what percentage have you found that consultants are unnecessary?

Dr. Hannah—The choice of consultant is left primarily with the physician calling in. It is done through the family physician. Now obviously if a man wants somebody in consultation whose opinion is no better than his own as far as we are concerned, we must reserve the right to call in someone else. We have not had to turn down more than half a dozen requests for consultants. He can make his arrangements with the patient and if he wants us to name the consultant, we don't name one consultant, we say, "The following men are cooperating with us and you can choose any one of the lot." If they can't find someone in the first half dozen we can name another half dozen and so on it goes until we find one that is mutually satisfactory.

It depends on what operation you want to make. For instance, if you were to make a tonsillectomy, we have so far called a consultant in that regard and we have only had one case where the consultant said they did not need to come out or gave us a definite reason to the contrary, so we have decided there is no need to have a consultation when it comes to tonsils. In such things as gall bladders—and I have to speak off the record

because our statistics are not complete—I can recall at least three cases where such an operation as a gall bladder was turned down by the consultant and the operation wasn't done. I can't give you the exact percentages.

Question—Is the enrollment the same as in hospitalization care, they go in groups, and is any type of examination required before enrolling?

Dr. Hannah—No. We approached this problem from the point of view: How does the doctor find illness in the community? If you will answer that question fairly to yourselves you will say, "You find illness in the community in relation to the family unit, not in relation to your industry, not in relation to your age or not in relation to your state of health." So we approached the problem from that angle. In order to remain economically sound we have to place certain stipulations. We could not afford to take on a man with a hernia who had had it for ten years and needed an operation right away. He would have to take care of that. But our group is the individual or family and we have I should judge about 1200 individuals whose subscriptions are paid by deduction from their salary. The remainder of them pay us directly.

The answer to your second question also is "No." The individual has to fill out a history form. We did start out with quite a number of physical examinations. We found that we did get a very thorough examination but we still had to make our own prognostications as to whether or not that individual was a good risk. Although a doctor may tell you the extent of the heart lesion he cannot tell you how long the individual may remain well. We have found there are a few borderline cases on which we want an examination but generally speaking on the majority of them they are not required.

Question—Do you feel that this is taking some individuals on relief, those who have not paid up their bills before?

Dr. Hannah—I don't think it has affected the relief situation at the moment. It has, I think, very definitely paid a considerable amount of money that the doctor would never have received in regard to illness. I cited you one case.

In regard to that relief situation, the day before our last Parliamentary session the Premier was good enough to call me over and talk for an hour and a half. In the course of the discussion it was suggested by the Premier that perhaps we had here a basis on which we might eventually evolve a good system of medicine for the indigent as well as the low income bracket, organizing everybody in cooperation.

That is something about which we can dream at the present time, that is stepping it down into these people, many more of them below the \$1000 class. As I have indicated we have 28% below the \$1000 but it is a plan that we are working on gradually, working back in conjunction with all parties concerned.

Question—Suppose a man paid for a number of years and then developed a disabling disease and can't pay any more, what provision have you for that?

Dr. Hannah—We have a clause in our regulations that states that if by reason of illness a man's total income is cut off, then he and his dependents if he is head of the family shall be carried for the remaining period of his illness not to exceed twelve months. If he goes beyond that,

well, he is just out. If you wanted to do that you would have to add that new cost on the subscribers.

Question—Is there any premium on good health and penalty on poor health?

Dr. Hannah—No, not at the present time except that if an individual had belonged to us for a matter of a year or two and he wanted some type of service that might be somewhat doubtful, we are a good deal more lenient with him.

Fifth District Meeting To Be Held at Ashtabula on September 11

An excellent program has been arranged for a meeting of the Fifth Councilor District of the Ohio State Medical Association, Wednesday afternoon and evening, September 11, at Hotel Ashtabula, Ashtabula.

The afternoon session, beginning at 5 o'clock, will consist of the following addresses by Cleveland physicians: "Treatment of Dysmenorrhea", Dr. G. Keith Folger; "Surgical Drainage", Dr. Wm. C. McCally; "Chemotherapy of Streptococcal Infections", Dr. Curtis F. Garvin.

A subscription dinner at \$1.50 per plate, will be served at 6 o'clock. Reservations for the dinner must be received by Dr. Clarence T. Risley, Conneaut, secretary of the Ashtabula County Medical Society, not later than Friday, September 6.

The evening session will be opened at 7:30 o'clock with a talk by Dr. John E. Rauschkolb, Cleveland, member of the Committee on Medical Service Plans of the Ohio State Medical Association, on "Ohio Medical Service Plans and Enabling Act". Other speakers at this session are: Dr. Harold Feil, "Treatment of the Acute Heart Attack", and Dr. Robert F. Parker, "Modern Treatment of Pneumonia". Both speakers are Cleveland physicians.

Arrangements have been made with the Ashtabula Country Club so that any physician desiring to play golf that afternoon may do so upon presentation of his membership card in the Ohio State Medical Association, and payment of the regular green fee.

Dr. Joseph M. Hayman, Jr., Cleveland, is chairman of the committee which has arranged the meeting. Associated with him are Dr. Harry V. Paryzek, Cleveland, President-Elect of the Ohio State Medical Association; Dr. Perry R. Longaker, president of the Ashtabula County Medical Society and Dr. Edgar P. McNamee, Cleveland, Fifth District Councilor.

Dr. A. C. Bachmeyer, dean of the division of biological science of the University of Chicago, and a former director of the American Hospital Association, has been retained as consultant by the mayor's commission surveying the hospital needs of Akron.

Stark County Postgraduate Program To Be Presented on October 2

The Annual Postgraduate Day of the Stark County Medical Society will be held at the Courtland Hotel, Canton, Wednesday, October 2, the program to be presented by a group from the Mayo Clinic, Rochester, Minn. Subjects and speakers follow: "The Diagnosis and Treatment of the Major Neuralgias of the Face", Dr. A. W. Adson, professor of neurosurgery; "The Diagnosis of Toxic Goiter", Dr. W. A. Plummer, head of the section of medicine; "Headache", Dr. A. R. MacLean, consultant, section of neurology and psychiatry; "Genito-Urinary Discussion", Dr. J. T. Priestley, assistant professor of surgery; "The Diagnosis of Myxedema", Dr. Plummer; "The Differential Diagnosis and Treatment of Chronic Recurring Sciatica Resulting from Rupture of the Intervertebral Cartilage", Dr. Adson.

Further details concerning the meeting can be obtained by addressing the general chairman, Dr. Emerson Gillespie, 120 Tuscarawas St., W. Canton.

Program Arranged for Northwestern Ohio Meeting, October 1, at Ottawa

The Ninety-Sixth Annual Meeting of the Northwestern Ohio Medical Association will be held at Ottawa, Tuesday, October 1. The program follows:

10:00 A.M.—"The Status of Immunization Procedures in Infancy and Childhood", Dr. J. Victor Greenebaum, Cincinnati.

11:00 A.M.—"The Experience and Treatment of Pneumonias During the Past Five Years", Dr. Julien E. Benjamin, Cincinnati.

12 Noon—Luncheon. Address by a nationally-known speaker on a non-medical subject.

2:00 P.M.—"Cancer of the Lower Gastro-Intestinal Tract", Dr. Fred W. Rankin, Lexington, Ky.

Officers of the Association are: Dr. D. B. Spitler, Hoytville, president; Dr. F. G. Maurer, Lima, vice-president; Dr. B. F. Mowry, Findlay, secretary; Dr. R. H. Good, Van Wert, treasurer; Dr. O. P. Klotz, Findlay, and Dr. E. J. McCormick, Toledo, Councilors.

Licensed Through Reciprocity

In addition to the list published on pages 885-6 of the August issue of *The Journal*, the following physicians have been licensed by the State Medical Board, through reciprocity with other states, to practice medicine and surgery in Ohio: Dr. Randall S. Derifield, Springfield, University of Minnesota; Dr. Arthur J. Klippen, Bellevue, St. Louis University; Dr. DeArmond J. McHenry, Columbus, University of Maryland; Dr. Boris B. Rubenstein, Cleveland, University of Chicago.

Message from the President

State Association Taking Concrete Steps To Assist Low-Wage Earner in Meeting His Health and Medical Problems—Passage of Enabling Act Essential— Every Member Must Do His Part

By WM. M. SKIPP, M.D., YOUNGSTOWN

WITHIN the last quarter century medicine has made tremendous advances. While these advances have been taking place, many persons have been finding the burden of meeting the costs of medical care becoming greater and greater.

The medical profession alone cannot be held responsible for this situation. There are many other agencies and groups participating in the care of the sick and prevention of disease. Our public health departments through their educational campaigns have made the public more health-minded, with the result that persons are wanting and demanding more extensive medical attention. There has been an expansion in the utilization of hospitals attended by more demands for private rooms and private nursing service, which adds to the costs of hospitalization. Welfare organizations have crusaded for expansion of medical and health programs so as to provide every individual with all-inclusive health services, some of them, of course, outside the "necessity" classification. Advances in medical science have made it necessary for the up-to-date physician to provide more and better equipment for diagnostic and therapeutic purposes, thereby increasing his capital investment and overhead which must be passed on to his clientele.

INCREASE IN COSTS THE RESULT

This combination of conditions has brought about a gradual over-all increase in the costs of modern health and medical services. The result is that large numbers of middle-class families are finding it difficult to make their annual budget cover all the costs of modern medical care, although it may be said that in many instances costly but unnecessary services are being demanded even against the advice of the attending physician. The economic distress of the past decade has added to the difficulties of the middle-class citizen. While he has been struggling to make both ends meet, including the payment of bills resulting from sickness, he has witnessed the expansion of programs to provide the totally needy with health and medical services at public expense. It is little wonder that he believes the time has arrived when something should be done

to assist him in financing his medical and hospital bills.

While these changes were taking place, the medical profession as a whole was slow to recognize that economic conditions have changed and that certain adjustments in the relationship between the profession and the public must be made. Physicians only recently began to realize that there are many persons who are not paupers, and who do not want to become so, but who are going without the care which physicians are equipped to give them, and which they should have, because of the financial problems involved.

PROFESSION SEEKING REMEDY

Fortunately, the attitude of the medical profession has changed during the past several years. We have awakened to this problem and are trying to do something about it.

We now are aware that the middle class will demand that the government furnish them with health and medical services, unless some sound procedure to make it possible for them to more easily finance the costs of sickness themselves is worked out. We realize that we cannot hope to continue as a free profession unless we squarely meet this problem. We know that politicians and government bureaucrats will take over all health and medical activities unless we take steps to see that good medical care is made available more readily than now to all who need it and that more efficient methods of meeting the costs are adopted. We have proof that governmental supervision and regimentation have many disadvantages for both patients and physicians. We are convinced that health and medical standards and the quality of medical services cannot be maintained unless the personal confidential relationship between patient and physician is continued. Instead of being discouraged and instead of taking a defeatist attitude, we have come to the conclusion that there is a solution to this problem.

Your Ohio State Medical Association is taking the lead in trying to provide this solution. Through its Committee on Medical Service Plans, it is laying the groundwork for the organization of voluntary pre-payment medical service plans in those communities where the medical profes-

sion and the public believe there is a definite need for some such plan. Through a plan of this kind, persons of modest income would be assisted in obtaining more adequate medical care and the financial burden of each would be lessened through the pooling of resources under a stipulated payment plan.

UNITED EFFORT ESSENTIAL

The Committee on Medical Service Plans realizes that it will be no easy task to suggest a plan which will be 100 per cent perfect. But, with the support of the entire profession, through experience, and after digesting information regarding plans in operation in other parts of the country, it will be possible to develop a plan which will go far toward meeting the problem. Obviously, the active support of the medical profession will be essential, as such plans will be sponsored and directed by the profession. The public must support us—in the final analysis these plans are for the benefit of the public. Safeguards against abuses by subscribers and physicians must be established. The services provided must be as complete as possible, with emphasis on preventive medicine. If a single plan is drafted, it should be elastic enough to be easily adaptable, with minor modifications, in local communities so as to meet local conditions and customs. Questions of fees, types of services, income status of subscribers, etc., should be determined locally.

These are some of the matters which the committee has been studying. Much data on plans in operation or contemplated have been assembled. When the committee is ready to announce its recommendations, they will be based on the best features of all plans which have been studied.

MUST HAVE ENABLING ACT

One thing must be kept in mind: Before a plan can be put into operation in Ohio it will be necessary to have enabling legislation enacted. Such a bill is being prepared by the committee and will be introduced at the January, 1941, session of the General Assembly. The first all-important step is to get this enabling act on the statute books. This throws out a challenge to each member of the Ohio State Medical Association. If the profession will get behind the Committee on Medical Service Plans and the Legislative Committee, this proposal can be enacted. The Legislature will approve the bill if our members and interested individuals outside the profession will urge its passage.

In the near future special information on the enabling proposal and the work of the committee will be sent to all members. Special articles are being prepared for publication in The Ohio State Medical Journal. Read your Journal each month. Ask officers of the Association and officers of your county medical society, as well as members

of the Committee on Medical Service Plans, for information on developments. Write the State Headquarters Office at Columbus if you have any specific questions on this subject and information will be made available.

Dr. Lyman F. Huffman, Cleveland, Is Appointed to Public Health Council

Governor John W. Bricker has appointed Dr. Lyman F. Huffman, chairman of the Public Health Committee of the Cleveland Academy of Medicine, to the Ohio Public Health Council, to fill the vacancy created by the resignation of Dr. Clyde L. Cummer. He will serve until June 30, 1945.

A graduate of Johns Hopkins University School of Medicine in 1914, Dr. Huffman is certified by the American Board of Urology; Fellow of the American Medical Association and the American College of Surgeons, and a member of the American Urological Association. Prior to engaging in the private practice of medicine in Cleveland, he was associated with the Venereal Disease Division of the United States Public Health Service.

Dr. Russel G. Means, Columbus, who was recently reappointed by the Governor for a six-year term ending June 30, 1946, is the new Chairman of the Public Health Council. William Helmer, Cincinnati, is the Vice-Chairman. Other members are Dr. Ward D. Coffman, Zanesville; S. F. Ridings, D.D.S., Greenville, and Mrs. C. Tracy LaCost, Toledo.

Members of Staff on the Air

The public services rendered by the Ohio State Medical Association were explained by Charles S. Nelson, executive secretary, and George H. Saville, assistant executive secretary, in two 15-minute interviews conducted recently by Radio Station WBNS, Columbus, in the series of "How's the Patient?" programs broadcast at 4:30 P.M. each Tuesday under the sponsorship of the Columbus Academy of Medicine. Richard A. Aszling, director of the Bureau of Public Education of the State Association, recently talked over WOSU, the Ohio State University radio station, on the contribution of his bureau to public health education.

Ophthalmology Board Exams

There will be only one written examination conducted by the American Board of Ophthalmology during 1941. This will be held in various cities throughout the country on March 8. Application must be made on the regular blanks provided for that purpose, and must be received in the Board office, 6830 Waterman Ave., St. Louis, Mo., not later than December 1.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Dr. W. D. Gatch, writing in *The Indiana State Medical Journal*, makes an indictment of much of present-day health education of the people on the basis that it

Right and Wrong Ways of Educating Public on Health Matters

frightens many more than it helps and, furthermore, has led the people to expect more than medical science is able to deliver. He urges us to consider that we have not and we cannot change the death rate from any of the diseases whose cause we do not understand. Dr. Gatch comments on the points that many are being led to believe that cancer is always curable early; that we can prevent insanity; that we can prevent the other degenerative diseases if we physicians but knew about them soon enough. All of which, he states, is not true.

For the most part we agree with Dr. Gatch, although we are not concerned with the fellow who has become a hypochondriac from reading medical and health columns. Something else could have dislocated his mind if the health column had not.

This is written for the purpose of pointing out that the health information which has been disseminated from our Bureau of Public Education has always pointed out that medicine does have certain limitations. It has consistently emphasized that all progress from now on until we learn the answer to a lot of questions, rests upon the shoulders of the public. It has endeavored to show people that they can resist diseases better if they will but eat properly, get adequate sleep and rest, work and play in a healthy manner. Finally we have warned them that they must be on the lookout for appendicitis, cancer and chronic infections themselves, pointing out that physicians can get more cures for these conditions if they will confer with physicians early but that some diseases are fatal from their beginning.

The question boils down to this: Health education has its place in modern civilization but its benefits depend pretty much on what kind of information is given out and how well it is tempered in the light of medical science.

The history of liberty is a history of limitations of governmental power, not the increase of it.—Woodrow Wilson.

During the next six or eight months the subject of medical service plans will be one of great current interest in Ohio. Following the mandate of the

Keep Posted Regarding House of Delegates at the 1940 Annual Meeting at Cincinnati, The Council and the Committee on Medical Service Plans are preparing a proposed enabling act which will be submitted to the State Legislature at its 1941 session, opening in January. Although obtaining enactment of the enabling act is the first step, widespread discussion of medical service plans themselves will necessarily take place as information regarding such plans will have to be disseminated in order to adequately set forth the purposes of the enabling act.

While widespread support from the public and organizations other than the Ohio State Medical Association for the enabling act is anticipated, the lead will have to be taken by the medical profession itself. This means that the 6,500 members of the State Association should prepare themselves now to take an active part in the campaign.

Education of the profession on this subject will be a basic requirement. Obviously, a physician will have to be familiar with the provisions of the enabling act and its purposes, and know something about the reasons for medical service plans and how they operate, in order to carry on an effective selling campaign.

Therefore, we suggest that members of the State Association start immediately to educate themselves on this question.

For those who like this suggestion, the article published elsewhere in this issue of *The Journal*, pages 990-999, being an address by Dr. J. A. Hannah, Toronto, Canada, is required reading. It will be remembered that Dr. Hannah, who is managing director of Associated Medical Services, Inc., Toronto, spoke at the Conference on Medical Service Plans at the 1940 meeting of the State Association at Cincinnati last May. *The Journal* is fortunate in being able to present his address in full. Read it. Dr. Hannah tells how one voluntary pre-payment medical care plan has been carried on successfully, what it has accomplished, and why it is one answer to the problem of bringing about a wider distribution of medical services for those of modest means.

Additional articles of this character will be

published in *The Journal*. Information on the Ohio enabling act and the activities of the Committee on Medical Service Plans will be sent from time to time to all members. County medical societies will be asked to devote time to discussions of this subject. When such meetings are held, make arrangements to attend.

Incidentally, Ohio physicians will be interested to know that the Michigan experiment in providing medical care on a pre-payment basis for low-wage earners is progressing satisfactorily. The following data regarding Michigan Medical Service is taken from the August issue of *The Journal of the Michigan State Medical Society*:

"Within three months, 20 groups of subscribers totaling more than 63,000 persons have been enrolled.

"Services have been rendered to 1,400 subscribers by 434 doctors of medicine.

"Over \$50,000 has been paid to doctors for services rendered to subscribers.

"Checks have been mailed by Michigan Medical Service to approximately one out of every 15 doctors in the state.

"The full Schedule of Benefits, equivalent to prevailing charges, was paid for all services.

"More than 3,100 doctors of medicine—approximately three-fourths of the total possible number—have registered with Michigan Medical Service indicating their willingness to render service for subscribers of the medical plan.

"During March, April and May the earned income from subscribers was sufficient to pay doctors for services rendered and to meet administration expenses, leaving a small net balance."

The inherent strength of the medical profession lies in its willingness to accept its responsibilities and to solve its own problems.—New York State Medical Journal.

Latest reports from the American Medical Association reveal that only about half of the physicians of Ohio have returned the Medical Preparedness Questionnaire, distributed by the Committee on Medical Preparedness of the American Medical Association to all physicians in the United States, for the purpose of obtaining confidential information as to how each physician could best serve in event of a national emergency.

Help Yourself! Send In Your Preparedness Questionnaire at Once

Since the questionnaires were distributed during the vacation period for many physicians, it might be said that this is a fair showing so far as Ohio is concerned, although not as good as that of a dozen or more states. On the other hand, there is reason to believe that a considerable number

of Ohio physicians have failed to realize the importance of the questionnaire—have carelessly misplaced it or have ignored it. For goodness knows why, some physicians have even expressed resentment at this attempt on the part of the A.M.A. to do something of concrete benefit for every physician, as well as for the nation as a whole.

In our opinion, the case as to why every physician should complete and return the Medical Preparedness Questionnaire immediately is well stated in the following editorial, headed, "Your Cooperation Essential", published in the August issue of *The Columbus Academy of Medicine Bulletin*:

"The recent receipt by all physicians of questionnaires from the American Medical Association relative to qualifications and availability of physicians for military service has occasioned considerable discussion and, in some quarters, misunderstanding and opposition. This has been further heightened by an additional questionnaire sent to members of the Medical Reserve by the proper military authorities.

"These questionnaires considered in connection with the present political and international situation have occasioned some apprehension and have been met, particularly in regard to the form from the American Medical Association, with a show of passive resistance. There is probably none of us who does not invariably feel disturbed by the apparent necessity for such measures, yet careful reflection will demonstrate beyond question the advisability for the fullest and most frank cooperation in completing these forms. Should military service be required of us, the majority would prefer to serve in some professional capacity.

"The fear is often expressed in private conversation that one will be forced to perform duties for which he has little taste or qualification. Even under the most favorable circumstances of previous organization a certain amount of discontent is likely to be unavoidable on this basis. On the other hand, if the gigantic task of proper assignment is to be carried out, the procurement of the information asked on the above questionnaires is necessary, and the success of the assignments and organization will be directly proportionate to the thoroughness of the answers given to the questionnaires.

"There will be many individuals who, for one reason or another, would serve best near their home community, or even by remaining at their present tasks. This cannot be determined in the necessarily impersonal handling of enrollees under the circumstances of mass conscription. Consequently the only reasonable method of protecting our interests, should war become inevitable, is to arrange previously for our assignments according to preference and capacity, both physical and professional. The completion of the questionnaires will greatly aid the organization of hospital units affiliated with medical centers by affording information for appropriately planned organization.

"There should be no resistance to a program designed in every way for our own benefit."

The plea made in the above editorial has our wholehearted support. Do your part in making the questionnaire return from Ohio 100 per cent.

Questionnaires may be obtained from the A.M.A. office at Chicago or the Headquarters Office of the Ohio State Medical Association, Columbus, in case you have misplaced or thrown away the questionnaire which was mailed to you several weeks ago.

Physicians who are tempted to procrastinate or waive these matters aside may well keep in mind that in a real emergency the Government is all-powerful, and that a record of non-cooperation may then be credited with a demerit rather than a merit card.—California and Western Medicine (re: A.M.A. preparedness questionnaire).

As a result of growing emphasis for the control of syphilis and a deeper understanding on the part of many employers of the value of physical examination of

One Safeguard for Physician Making Physical Examination

employes, there has been a notable increase in the number of industries which demand, or encourage, their workers to submit periodically to a medical examination. Some require a complete physical examination; others the Wassermann examination.

Obviously, this places a greater responsibility on the medical profession. The ability to perform a good physical examination is an essential qualification for the up-and-coming physician. Also, it creates certain legal problems for the physician, of which he should be aware in order to adequately protect himself.

For example, there is the question of violation of the principle of confidential communications.

When a physician makes a physical examination of a worker, fills out the necessary papers and returns such blanks to the employee who in turn submits them to the employer, the question of confidential communications is not involved. The only legal hazard which the physician faces is that which is constantly before him: Was the examination properly conducted and can the report be adequately substantiated by the facts produced through the examination?

On the other hand, some industries underwrite the costs of physical examinations given their employes and demand that the report of the examination be submitted directly to the employer by the examining physician. Under these circumstances, a different legal factor arises. In following this procedure, does the physician violate the principle of confidential communications and expose himself to suit for alleged slander?

It may be argued that when a worker submits himself to a physical examination at the request of his employer, in order to hold his job, or to obtain a job, and with a full knowledge of

why he is undergoing the examination, there is at least an implied permission granted to the examining physician to submit the report of his findings directly to the employer. This implied permission may be present and it might serve as adequate defense in event of litigation. On the other hand, this is a moot question. Why, therefore, should the physician take a chance? Wouldn't it be wise for him to protect himself at the very beginning? The obvious answer is "yes".

Probably the most satisfactory arrangement which can be made by a physician in cases where the report is to be given directly to the employer is for the physician to have the employee being examined sign a definite, written waiver, perhaps in somewhat the following form, which may be modified to meet particular circumstances:

"The undersigned grants permission and requests Dr. _____ (name of examining physician) to convey full information on the result of a physical examination made of the undersigned on _____ (date) to _____ (name of employer) and waives on behalf of myself and any other person who may have an interest in this matter, all provisions of law relating to the disclosure of knowledge or information which he may acquire through such examination, to the person, firm or corporation named above." (Signature of person examined.)

This may seem like a lot of red tape but the question involved is not one to be viewed lightly by a physician. Better red tape, than a court judgment!

A patient can offer you no higher tribute than to entrust you with his life and his health, and, by implication, with the happiness of his family.—Lord Moynihan.

In 1941, Ohio will be host to the world's greatest medical assembly—the annual session of the American Medical Association. It is not too early for Ohio physicians to begin to make plans to attend this biggest of all medical conventions in Cleveland—*Fellowship in A.M.A. Especially Important for Ohio Physicians*

probably early in June.

Eligibility to attend the sessions of the A.M.A. may be obtained by any physician by becoming a fellow of the American Medical Association. To become a fellow of the A.M.A., a physician must, first, be a member of his local and state medical society and, second, in applying for fellowship must pay the annual fellowship dues, at present amounting to \$8.00, which entitle him to receive *The Journal of the American Medical Association*, in addition to many other

benefits and services. If a fellow would rather receive one of the other special journals of the A.M.A. in lieu of *The Journal of the A.M.A.*, arrangements for this will be made on request. Subscription to *The Journal of the A.M.A.* and fellowship dues are the same.

As of April 1, 1940, a total of 3,728 Ohio physicians held fellowships in the A.M.A. This number should be increased considerably between now and next June, for surely many physicians who are not fellows at this time will want to become eligible to take in the A.M.A. 1941 session in Cleveland.

In our opinion, fellowship in the A.M.A. is something which every physician should covet. The annual fee certainly is a modest one. *The Journal of the A.M.A.* is worth many times \$8.00 per year to the physician who is sincerely interested in keeping himself posted on current medical questions and techniques. In addition, a fellow receives many other services and benefits which are indispensable to the up-to-date physician. We urge every Ohio physician to take steps to become a fellow in the A.M.A. as soon as possible, if for no other reason, so he will be eligible to attend the A.M.A. session in Cleveland next year.

We need to re-emphasize to ourselves that medicine is a learned profession, not a business or trade—a scientific pursuit, tempered but not dominated by human kindness.—*Detroit Medical News.*

Did you read, "War Against the Middle Classes", by Peter F. Drucker, in the August 10 issue of *The Saturday Evening Post*? If not, dig up that issue of *The*

What Is in Store

for the Middle

Classes in America?

Post. Mr. Drucker's description of the plight of the middle classes in Europe as a result of recent political, economic and social events is an eye-opener. A few excerpts from the article should be sufficient to stimulate any thinking American into devoting serious thought to the trend of events in his own country.

After describing how government control and centralization of all activities within the government have virtually destroyed the independent grocers in Germany—ardent followers of Hitler in the early days, Mr. Drucker offers these observations:

"Other branches of middle-class business have suffered just as much. Wholesalers, importers, exporters, warehousemen, insurance brokers, jobbers, distributors, small-town bankers—all the many middleman's businesses in which an independent with integrity, experience and initiative could compete on equal terms with big business have been liquidated and replaced by huge gov-

ernment-controlled and government-owned monopolies. The process has even invaded the professions. In one middle-sized industrial city in Western Germany there used to be twenty-five lawyers, all of whom had enough to do. The government in 1938 declared twelve to be superfluous and ordered them to close shop. The older men were retired on a small pension. A few of the younger ones who had good political connections were taken over into the ever-growing Nazi bureaucracy at very much lower wages. Two were ordered to take the place of traffic policemen who had been transferred to the army. One was made a meter reader of the local gas company. And one who was politically suspect was drafted into the 'labor army' to build military roads on the Dutch border. Had the expulsion of the Jews not torn such a big hole in the German medical profession, similar measures would have been taken with doctors, an Austrian physician in close touch with the German situation told me as early as 1936. And there has been a drive to thin the ranks of other professions, such as teachers, consulting engineers and patent attorneys. That half of the Protestant churches in Germany have no pastors, according to a statement made recently by the American Lutherans, is just as much due to the attack on the middle-class professions as to that on religion."

Pointing out that many of the leaders in the totalitarian countries are beginning to realize that by destroying the middle classes through the mechanism of dictatorship and by preparations for "total war" they are virtually undermining their own regimes, Mr. Drucker reports that there is a real desire on the part of many for a return to former political, social and economic concepts, but that it may be too late for this. He writes:

"That medicine and law services ought to be nationalized was almost a standard demand of the United Front groups. Now that they practically are, the poor—not the rich—complain bitterly that they cannot obtain decent legal or medical help. Even a Russian Communist in a high position once admitted to the writer that the Five Year Plans would have been ten times as successful had Bolshevik ideology permitted the existence of a real middle class of professional men, engineers and small businessmen. 'As things are at present,' he said, 'we must try, by an artificial system of punishments and rewards, to create that zest and initiative among our plant managers and intellectuals which they would display as a matter of course, could we but permit them the freedom of a middle class'."

This newest exposition of the deplorable status of Europe's middle classes should serve as an additional warning to the great middle classes of the United States. There is plenty of evidence to show what is in store for them under excessive centralization and regimentation, whether in peace or in war. What would happen to them in event of war is a certainty. In time of peace, the middle classman has a fighting chance to save himself as well as American democracy. But, to do so he is going to have to take more inter-

est in governmental affairs than in the past and exercise greater discrimination in the selection of public officials than he has shown during some recent years.

To bring this to a spot close, it is our opinion that a very appropriate time for those of the middle classes—physicians included, if you please—to make a determined stand against further exploitation would be at the elections to be held in November. Then is when those who represent the backbone of every community in Ohio and every state should decide that those holding local, state and national government positions are going to have to measure up to democratic principles—not the philosophies, ideologies, isms, and what not which have crushed the very cornerstone of civilization in other parts of the world.

The hospital construction bill, passed by the Senate, seems to be bottlenecked in the House Committee on Interstate Commerce.—Washington News Letter on Social Legislation.

During the past month or so, the Division of Audits and Statistics, State Department of Health, has been literally swamped endeavoring to fill requests for certified copies of birth certificates. Requests have totaled as high as 2,000 in one week. This condition has been caused primarily by the international crisis. The indirect causes are the ruling that only citizens may be employed on projects furnishing materials under the national defense program and the tightening up of citizenship requirements for governmental and military services, and civilian employment generally.

At no time since the war days of 1917-18 has the question of birth registration been one of such importance. The present situation has served to emphasize how essential it is that every birth be promptly and accurately reported to the proper agency.

The State Department of Health has listed the following important reasons for official registration of birth: For proving parentage, date of birth, right to vote, to marry, to enter civil service, entrance to school, for work permit, entering military service, settlement of insurance, pensions and estates, to establish legal dependency, for tracing ancestry, to obtain social security benefits, to establish identity, to meet immigration and emigration laws and regulations.

Obviously, the attending physician plays an important role in the registration of births. His responsibilities are great. Some seeking copies of birth certificates today have encountered seri-

ous difficulties and problems because some physicians in the past have been lax in the reporting of births.

Starting immediately every physician attending a delivery should assume the personal responsibility for seeing that the birth is officially reported to the local registrar of vital statistics within 10 days and that the proper papers are completed. As a matter of fact, the attending physician is legally obligated to do this. The Ohio law provides that a physician who does not report a birth within the 10-day time limit may be prosecuted and fined. Action of this kind should not be necessary as each physician certainly realizes the importance of this particular legal duty. Adherence to the law and cooperation between the medical profession and registrars of vital statistics is essential. The physician who refuses to cooperate should be disciplined for his failure to meet this professional, as well as a legal, obligation.

Every physician should know the sensitivity and specificity rating of the laboratory to which he sends his specimens.—The Journal of the A.M.A.

To use or not to use the injection treatment for hernia has been the subject of more than one heated debate in medical circles during the past few years.

Injection Treatment of Hernia Not Advisable for General Use There are staunch supporters of both sides of the issue. The question has arisen with increasing frequency in the adjudication of Workmen's Compensation claims. Therefore, any new authoritative statement on this subject merits the attention of the medical profession generally.

The most recent report on the subject which may be regarded as competent advice is a report of the Council on Pharmacy and Chemistry of the American Medical Association, published in the August 17, 1940, issue of *The Journal of the American Medical Association*.

According to the Council, the injection treatment of hernia is not advisable for general use and should be employed only by those with special experience and with full understanding of the dangers involved. The Council's findings were based on a survey of a selected group of hospitals as to the extent of the use of the injection treatment, its safety and effectiveness, the incidence of unfavorable complications and the nature of these complications.

In concluding the report says:

"The Council now concurs in the opinion that the method involves less danger of serious complications than surgery when employed only in selected cases of hernia by those skilled in the injection of suitable standardized solutions of

known composition and action. The Council is not, however, willing to recognize any such solutions for New and Nonofficial Remedies until sufficient follow-up experience in their application has been gained to establish the success of the injection method of treatment. Present evidence indicates that better types of solution are to be desired."

In other words, the profession should be cautious in the use of this procedure, awaiting experience which can be obtained through controlled experiments before extending it to general use.

Coming Meetings

American Academy of Ophthalmology and Otolaryngology, Cleveland, Oct. 6-11.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Excelsior Springs, Mo., Sept. 26-28.

American College of Physicians, Boston, April 21-25, 1941.

American College of Surgeons, Chicago, Oct. 21-25.

American Congress of Physical Therapy, Cleveland, Sept. 2-6.

American Hospital Association, Boston, Sept. 16-20.

American Public Health Association, Detroit, Oct. 8-11.

American Roentgen Ray Society, Boston, Sept. 26-Oct. 4.

American Society of Anesthetists, New York, Oct. 10.

Association of Military Surgeons of the United States, Cleveland, Oct. 10-12.

Interstate Postgraduate Medical Assembly, Cleveland, Oct. 14-18.

Southern Medical Association, Louisville, Nov. 12-15.

Southern Surgical Association, Hot Springs, Va., Dec. 10-12.

Retail sales of the barbiturates to consumers may now be made only on prescription by a physician in 26 states, as the result of laws enacted up to May 1. The states enacting such laws are Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Maine, Maryland, Minnesota, Mississippi, Nebraska, Nevada, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, Washington, and West Virginia.

Professional Men's Outing in Columbiana County Addressed by Dr. Skipp

Dr. William M. Skipp, President of the Ohio State Medical Association, was a guest of honor at the first annual professional men's outing of Columbiana County, held July 25 at the East Palestine Country Club, Negley. Dr. Skipp spoke briefly about inter-professional relations to the 150 attorneys, physicians, and dentists who attended the gathering.

"I am convinced", Dr. Skipp said, "that out of a meeting of this kind will come a sounder understanding among our three groups which will inevitably be reflected in the welfare, not only of ourselves, but of the public as well".

There is a need, he declared, for the physicians, dentists, and attorneys of the nation to cooperate in opposing attempts to subject their professions to undue political domination. "Perhaps we physicians are closer to this threat, face to face, than the other two professions represented here today", he said. "At any rate, the clamor for some type of communized medicine—compulsory health insurance—has been louder than the cry for socializing dentistry or law. But if one of us goes over the brink, the other two will certainly not be far behind".

Dr. Skipp explained the State Association's efforts to obtain passage of an enabling act to permit establishment of medical service plans, and the assembled group voted to support it.

Chairman of Squibb Board Dies

Theodore Weicker, chairman of the board of E. R. Squibb & Sons, New York, pharmaceutical manufacturers, died at his home in Greenwich, Conn., August 7, in his 80th year. A native of Germany, Mr. Weicker came to America in 1887. He was the managing partner of the New York branch of E. Merck for 15 years, during which time he acquired degrees in pharmacy and pharmaceutical chemistry at Columbia University. In 1905 he joined with the late Lowell M. Palmer to purchase the business of E. R. Squibb and Sons. At a time when the American market was flooded with nostrums and quack remedies, Mr. Weicker conceived the idea of extending to the general public, under strict professional supervision, authoritative information about pharmaceutical products. He evolved the slogan, "The priceless ingredient of every product is the honor and integrity of its maker". In October, 1938, Mr. Weicker saw a life-long dream come true when the Squibb Institute for Medical Research was opened at New Brunswick, N. J.

Cincinnati—With the recent cancellation of a \$1,600,000 mortgage, Christ Hospital, representing an investment of more than \$4,000,000, is being operated with no funded debt.

Industrial Commission Disburses \$2,612,378.38 for Medical Service in 1939, Annual Report of Actuary Shows

ACCORDING to a recent report of E. I. Evans, chief actuary, the State Industrial Commission during 1939 disbursed \$2,612,378.38 for medical service, (including a small amount for dental service); \$1,136,968.97 for hospital care and nursing; \$109,665.92 for funerals, and \$117,996.79 for court costs, a total of \$3,977,010.06 paid during the year in addition to death awards and compensation to injured employees. This figure includes payments covering injuries to private and public employees, as well as occupational disease claims.

Comparative figures for 1938 follow: \$2,892,631.07 for medical service; \$1,182,901.78 for hospital care and nursing; \$124,196.63 for funerals, and \$114,951.09 for court costs, a total of \$4,314,580.57.

The number of claims filed during 1939 was 183,080, compared with 165,223 in 1938; 255,094 during the peak year—1929; and 130,099 in 1932.

“Medical only” claims, involving only payment for physician’s services, but no compensation for loss of time by the claimant, numbered 142,017 during 1939, or 77.6 per cent of the total. Average expense of the “medical only” claims decreased from \$8.78 in 1938 to \$8.37 in 1939.

STATUS OF THE FUND

The financial condition of the Ohio State Insurance Fund, as of December 31, 1939, interesting data concerning disbursements, claim costs and rate revisions, are contained in the annual report of the actuary reading in part as follows:

“The Ohio State Insurance Fund has experienced a very favorable year during 1939, which has made it possible to reduce the general level of workmen’s compensation rates. The rate reduction will result in a reduction of \$1,500,000 in the premium cost to employers for the next year on a basis of future activity similar to 1939.

“The greater activity of the Commission in the auditing of employers’ payroll returns and the expansion of compliance enforcement activity to bring into the fund those employers, who have failed to carry insurance, have contributed in a substantial degree towards increasing premium income. The increase in industrial activity during the year has improved economic conditions and contributed toward lower cost of claims.

“The financial statement (Table 1) reflects a favorable experience of the Fund in the surplus having increased \$2,054,002.93 during 1939; thus, the surplus at the close of the year reached \$3,812,861.22.

“The Fund also carries a statutory surplus to

provide for catastrophe losses, which surplus increased from \$3,342,220.38 to \$3,362,267.62.

“The total assets for the year increased from \$58,350,062.66 to \$64,061,538.61, an increase of \$5,711,475.95. An addition of \$2,839,858.83 was made in the amount of reserves set aside for future payment of benefits on claims occurring prior to 1940, thus increasing the claim reserves from \$49,835,507.26 to \$52,675,366.09.

“A comparison of the premium income and losses for the past five years (Table 2) discloses that the premium, losses and investment earnings for the year 1939 increased over 1938, while the net losses incurred developed a slight decline after giving effect to investment earnings. The earned premium increased \$1,209,186, or 8%, while losses incurred increased \$69,366, or less than 1%. The investment earnings increased \$167,203, which served to more than offset the increase in losses incurred, thus resulting in the net losses incurred showing a decrease of \$97,837. The reserves held for future payment of losses are invested in bonds and the interest earnings are, therefore, used to meet claim obligations and serve to reduce the value of the net losses incurred below the benefits paid.

“The expense of administration of the Fund is paid from the General Revenue Fund of the State and not from premiums, the only exception being the expense of maintenance of the Division of Safety and Hygiene (which cannot exceed 1% of the premium) and for audits of the Fund. Such expense from premiums for the year 1939 amounted to \$138,747.

“For the year 1939, 86.4% of the total premium earned was allocated to meet net losses incurred, which left 13.6% of the earned premium to apply towards surplus and statutory expense.

“Table 3 analyzes the disbursements made during the year 1939, such disbursements being distributed not only for claims on accidents that occurred during the year but also for open and continuing claims on accidents back over the 28 years of the Fund’s existence. Disbursements in 1939 were made on claims of accidents that occurred in 1912, the first year of the Fund’s operation. This extensive continuation of benefit disbursements over an extended period of years necessitates the maintenance of the reserve for claims of \$52,675,366.09.

“In distributing benefits of \$13,235,911 during the year, the injured worker or his dependents received \$9,576,615 in compensation for loss of wage earnings while \$3,659,296 was paid for fees to attending physicians, nurses, hospitals, undertakers and court costs. Thus 72% of the benefits

(Continued on page 1010)

TABLE 1
OHIO STATE INSURANCE FUND
 (Workmen's Compensation)

FINANCIAL STATEMENT AS OF DECEMBER 31, 1939
***PRIVATE FUND**

Assets		
BONDS AT AMORTIZED VALUES.....		\$54,907,631.03
State Treasurer's Bond Balance.....	\$56,431,047.77	
*Less Public Fund.....	3,389,121.43	
Par value of bonds.....	\$53,041,926.34	
Amortized value over par.....	1,865,704.69	
All bonds are in the custody of the State Treasurer and consist of obligations of the Federal Government and Ohio taxing districts.		
CASH IN BANKS.....		5,207,655.00
Certificates of deposit drawing interest.....	\$ 1,558,816.53	
Checking account without interest.....	3,981,582.33	
State Treasurer's balance.....	\$ 5,540,398.86	
*Less Public Fund.....	332,743.86	
All deposits are in Ohio banks and are protected by depository bonds held by the State Treasurer.		
PREMIUMS IN COURSE OF COLLECTION.....		3,365,551.07
No premiums more than 60 days old are included.		
INTEREST ACCRUED.....		580,701.51
TOTAL ASSETS.....		\$64,061,538.61
*The Ohio State Insurance Fund is separated by statute into two funds. The Private Fund covers employers in private industry, while the Public Fund covers the State, municipalities and other taxing districts.		
Liabilities		
RESERVE FOR COMPENSATION AND MEDICAL BENEFITS.....		\$52,675,366.09
To cover future payments on claims where the inception of the injury or disease was prior to January 1, 1940. Compensation and other benefits extend over periods of time and, in some cases, during the remainder of the life of a claimant.		
OUTSTANDING WARRANTS.....		203,578.68
Warrants issued for claim benefits which had not been presented for payment to the State Treasurer by December 31, 1939.		
UNEARNED PREMIUM.....		4,007,465.00
Advance premium paid for coverage beyond December 31, 1939.		
STATUTORY SURPLUS.....		3,362,267.62
To provide for catastrophe losses and other statutory contingencies. (No reinsurance is carried to cover catastrophe hazard.)		
SURPLUS.....		3,812,861.22
To provide for general industrial trends and non-statutory contingencies.		
TOTAL LIABILITIES AND SURPLUS.....		\$64,061,538.61

TABLE 2
COMPARATIVE INCOME, LOSSES AND EXPENSE

Year	Earned Premium	Losses Incurred	Minus Investment Earnings	Net Losses Incurred	% of Losses to Premium	Expense
1935.....	\$11,985,744	\$12,588,890	\$1,713,539	\$10,875,351	90.7	\$119,821
1936.....	16,691,107	16,873,869	1,621,641	15,252,228	91.4	131,003
1937.....	20,531,783	21,350,784	1,336,726	20,014,058	97.5	147,863
1938.....	15,004,859	15,861,386	1,762,301	14,099,085	94.0	145,130
1939.....	16,214,045	15,930,752	1,929,504	14,001,248	86.4	138,747

was paid direct for compensation for loss of earnings and 28% was for services rendered in behalf of the injured employees.

"When the 1939 benefits of \$13,235,911 are allocated to the year in which the accident occurred, we find that only 35% of the 1939 distribution was for accidents that actually occurred in 1939. Much of the ultimate cost of 1939 accidents will be distributed in future years. As medical cost largely develops early in a claim, and many claims involve only medical cost, medical usually exceeds compensation disbursements during the year of the accident. It will be noted

TABLE 3

1939 BENEFIT DISBURSEMENTS DISTRIBUTED TO
YEAR OF ACCIDENT OCCURRENCE
(Excludes Occupational Disease and Public Fund)

Year of Accident Occurrence	Compensation	Medical, Hospital and Other Costs	Total	%
1939	\$2,141,622	\$2,486,347	\$ 4,627,969	35.0
1938	1,136,425	506,020	1,642,445	12.4
1937	1,097,532	178,605	1,276,137	9.6
1936	844,603	102,390	946,993	7.2
1935	670,754	61,721	732,475	5.5
1934	617,160	55,833	672,993	5.1
1933	396,686	43,258	439,944	3.3
1932	403,986	41,984	445,970	3.4
1931	364,161	36,387	400,548	3.0
1930	340,077	26,099	366,176	2.8
1912-1929	1,563,609	120,652	1,684,261	12.7
Total	\$9,576,615	\$3,659,296	\$13,235,911	100.

that medical cost rapidly diminishes as the claims become older and the compensation benefits disbursed in later years, after the occurrence of the accident, are greatly in excess of the medical benefits.

"The extent of the disbursements required over many years is indicated by there having been distributed in 1939, \$1,684,261 on claims of accidents that had occurred ten or more years prior to 1939.

CLAIM COST

"The average cost of accident claims including compensation for wage loss as well as various medical, funeral and court costs, decreased 3% during 1939. Compensation cost decreased 2% while the cost of medical and other benefits decreased 6%.

"The average benefit cost of claims has increased in the past ten years. In 1939, the total benefit cost was 2% higher than that of 1929. The average medical and other fee cost was 3% lower in 1939 than in 1929 while the compensation cost had in 1939 risen to 5% above that for 1929; thus compensation cost in the past ten years has increased, while medical and other fee cost has decreased.

"Since 1929 increased benefits have been provided through statutory amendments, which

would tend to increase compensation cost.

"The cost of occupational disease claims has shown a substantial increase during the year, reflecting the broadening of the law to include all industrial occupational diseases not previously included, and the removal of limitations as to maximum benefit provisions formerly applying to silicosis claims.

"The rule pertaining to the reporting of payroll and the payment of premium on employees performing duties outside Ohio has been revised and extended to require the inclusion of the full payroll of employees of Ohio employers, such as traveling salesmen performing work of a transitory character, wholly outside the borders of Ohio. This revision is in conformity with a recent decision of the Ohio Supreme Court.

ADMINISTRATION FACILITIES

"The extension of the activities of the Commission in respect to payroll audit, compliance and claim investigation has had a wholesome effect on the premium income and losses incurred. The activity in this regard has been necessarily restricted due to the limited funds available for this work.

"In the payroll auditing of 2231 employers, during the year, findings of additional premium in 950 cases were made. These findings involve payroll shortage, or improper reporting of \$16,922,235 in payroll, which represented additional premium of \$151,762 due the Fund.

"The compliance investigation in 1939 of employers failing to insure when having three or more employees disclosed 1001 non-complying employers with annual premiums of \$135,729.68, and the checking of employers advance estimates resulted in premium increases of \$706,933.16.

"During the year investigation has been made on continuing claims of long standing and the results have indicated the need for more extended provisions for this work in bringing to light unnecessarily extended claims.

"The facilities provided for payroll audit, compliance and claim investigation could well be extended in the interest of reduced premium rates and a full and proper reporting of payroll by all amenable employers. Facilities should be provided to periodically investigate all continuing claims for the benefit of all concerned.

SUMMARY OF RATE REVISION

"The annual revision of premium rates carries a reduction in the general level of 9.4%. This revision is effective on or after July 1, 1940 on all semi-annual renewals, reinstatements or new business.

"The reduction is applicable to those classifications where the accident cost experience developed a favorable trend. In some classifications there was not an improvement in the experience

that would warrant a change in the former rate, while in a few classifications the experience was adverse and an increase in rate was made necessary. The result of the revision is as follows:

	Number	Percent
Rates decreased	205	52.7
Rates unchanged	166	42.7
Rates increased	18	4.6
Total classifications.....	389	100.0

"The occupational disease rate applicable to all classifications remains unchanged at 2 cents."

TWENTY-EIGHT YEAR RECORD

The Ohio State Insurance Fund has completed its 28th year, having begun operation March 1, 1912. From that time until December 31, 1939, there have been 4,413,979 claims filed; \$306,158,275 collected in premiums; \$285,511,265 disbursed for benefits; \$43,086,934, interest collected. During its 28 years of existence, the Fund has insured at some period or continuously, 137,393 employers. On December 31, 1939, there were 51,861 employers actively covered, including 4,037 public employers.

Time Limit Placed on Filing of Medical Bills by Commission

Bills for medical, nurse and hospital services and medicine to injured employees entitled to benefits under the Workmen's Compensation Act must be filed within two years of the time said services were rendered unless unusual circumstances are involved, according to a resolution adopted by the State Industrial Commission on August 9, to be effective October 1.

Stating that a few physicians throughout the state are dilatory in filing bills for service, the Commission pointed out that since the enactment of H.B. 400, amending the Workmen's Compensation Act, effective August 28, 1939, compensation awards or benefits cannot be paid for a back period beyond two years of the date of the filing of an application for a modification or change in an award. The Commission is of the opinion that it cannot legally pay medical fees beyond two years from the date of filing, except when a claimant has filed an application for further compensation. It is inferred that a request for additional compensation includes medical service.

The resolution reads as follows:

"That all bills for medical, nurse and hospital service and medicine to injured employees shall be forever barred unless bill for same is filed with the Industrial Commission within

two years of the time said services were furnished;

"Provided, however, that such bills may be considered by the Commission where same are filed within six months after the order of the Commission allowing the claimant's claim in which said services were rendered, regardless of the fact that such bills were not filed within two years after the furnishing of said services;

"Provided, further, that no bills for such services shall be allowed for services rendered within any period, during which the claimant cannot be awarded compensation by reason of Section 1465-86."

The Commission has also modified Rule No. 9 of the Rules and Regulations for the Guidance of Physicians, Hospitals and Nurses, as contained in the General and Special Fee Schedule, to read as follows:

"Except in emergencies or where the condition of the patient might be endangered by delay, consent from the Commission must be obtained in advance where any surgery is contemplated. No bills for major surgery will be approved, even when authorized, until a copy of the hospital record of operation has been placed on file."

Date When Medical Bill Was Paid To Claimant Is Decisive Point in Litigation

Payment to a physician for services rendered a claimant under the provisions of the Workmen's Compensation Act was a payment of "compensation", the Court of Appeals of Crawford County held in the case of *McHale vs. Industrial Commission*, 63 O. App. 479, and the ten-year limitation contained in General Code Section 1465-86 relating to modification of awards is counted from the date of the last such payment. In the *McHale* case the claimant was injured in 1922, and was paid compensation until April 30, 1923. A medical bill was approved February 24, 1923, but the mailing of the warrant to the physician was overlooked until November 1, 1930, at which time the bill was paid. The claimant filed an application for additional compensation on November 3, 1938, over 15 years after the last payment to him, but the ten-year period was held to extend from the time of the payment in 1930. A motion to certify this case to the Supreme Court was filed but was dismissed by the appellant on March 5, 1940.

A recent bulletin of the Ohio Manufacturer's Association comments as follows on the significance of this decision:

"The Industrial Commission apparently will be governed by this decision, and at least one result of this is the importance that self-insurers and employers who follow the course of their claims make certain that all fee bills for medical services are paid as soon as possible after they are rendered."

Many Distinguished Physicians Will Address Inter-State Postgraduate Assembly in Cleveland, October 14-18

THIS year's International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the Public Auditorium, Cleveland, October 14, 15, 16, 17 and 18.

A full program of scientific and clinical sessions will take place each day and evening, starting at 8:00 o'clock in the morning. In the neighborhood of 80 distinguished teachers and clinicians from different parts of the United States and Canada will present the program.

Members of the profession are urged to take their wives with them as an excellent program is being arranged for their benefit by the Ladies' Committee.

Pre-assembly and post-assembly clinics will be conducted in the Cleveland hospitals on the Saturdays previous and following the assembly.

Scientific and commercial exhibits will be an important part of the assembly. These exhibits will be open to members of the medical profession in good standing without paying the registration fee of \$5.00 for the scientific and clinical sessions.

Program of the five-day meeting will be as follows:

MONDAY, OCTOBER 14

8:00 A.M.

Diagnostic Clinics

"Surgical Management of Recurrent Hyperthyroidism"—Dr. Richard B. Cattell, Lahey Clinic, Boston.

"Types and Treatment of Chronic Nephritis"—Dr. John Musser, Professor of Medicine, Tulane University School of Medicine.

"Treatment of Bronchiectasis"—Dr. John Alexander, Professor of Surgery, University of Michigan School of Medicine.

"Adrenal Insufficiency and the Use of Synthetic Adrenal Cortical Hormone"—Dr. George W. Thorn, Associate Professor of Medicine, Johns Hopkins University School of Medicine.

"Prevention of Deformities in Arthritis"—Dr. Loring T. Swaim, Boston.

1:00 P.M.

Diagnostic Clinics

"Surgical Treatment of Peptic Ulcer"—Dr. William F. Rienhoff, Associate Professor of Surgery, Johns Hopkins University School of Medicine.

"Clinical Types of Pituitary Disease"—Dr. David P. Barr, Busch Professor of Medicine, Washington University School of Medicine.

Addresses

"Postoperative Management of the Surgical Patient"—Dr. Frederick A. Collier, Professor of Surgery, University of Michigan School of Medicine.

"Some Observations on the Nature of Acute Nephritis"—Dr. John P. Peters, Professor of Medicine, Yale University School of Medicine.

"Management of the Complications of Pregnancy"—Dr. Nicholson J. Eastman, Professor of Obstetrics, Johns Hopkins University School of Medicine.

"Recent Advances in Chemotherapy"—Dr. Chester S. Keefer, Associate Professor of Medicine, Harvard Medical School.

"Treatment of Wounds"—Dr. Frederick Christopher, Associate Professor of Surgery, Northwestern University School of Medicine.

"Intestinal Absorption as a Clinical Physiological Problem"—Dr. Maurice B. Visscher, Professor of Physiology, University of Minnesota Medical School.

7:00 P.M.

Addresses

"The Interpretation and Treatment of Spells of Unconsciousness in Medical and Surgical Practice"—Dr. Soma Weiss, Hersey Professor of the Theory and Practice of Physic, Harvard Medical School.

"Encephalopathies in Children"—Dr. Bronson Crothers, Assistant Professor of Pediatrics, Harvard University Medical School.

"Surgery of Hypoglycemia with Special Reference to Resection of the Pancreas"—Dr. Vernon C. David, Clinical Professor of Surgery, Rush Medical College.

"The Immediate Treatment of Head Injuries"—Dr. Donald Munro, Assistant Professor of Neurological Surgery, Harvard University Medical School.

"Management of Pelvic Inflammatory Disease"—Dr. John R. Fraser, Professor of Obstetrics and Gynecology, McGill University Faculty of Medicine.

"Common Errors in Cardiac Diagnosis"—Dr. A. Carlton Ernstene, Head of the Cardiorespiratory Department, Cleveland Clinic.

TUESDAY, OCTOBER 15

8:00 A.M.

Diagnostic Clinics

"The Use of Testosterone Propionate in Male Hypogonadism"—Dr. E. Perry McCullagh, Cleveland Clinic.

"Special Problems in the Nutrition of Children"—Dr. Henry J. Gerstenberger, Professor of Pediatrics, Western Reserve University School of Medicine.

"Immediate Treatment of Burns"—Dr. Donald M. Glover, Associate Clinical Professor of Surgery, Western Reserve University School of Medicine.

"Medical Treatment of Peptic Ulcer"—Dr. Walter C. Alvarez, Professor of Medicine, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"Fractures of the Neck of the Femur"—Dr. William R. Cubbins, Clinical Professor of Bone

and Joint Surgery, Loyola University School of Medicine.

1:00 P.M.

Diagnostic Clinics

"Gout"—Dr. Russell L. Haden, Cleveland Clinic.

"Surgery of the Pancreas"—Dr. Waltman Walters, Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic.

Addresses

"Medical and Surgical Aspects of the Obstructing Prostate"—Dr. Hugh H. Young, Professor of Urology, Johns Hopkins University School of Medicine.

"Protruded Intervertebral Disc"—Dr. Howard C. Naffziger, Professor of Surgery, University of California School of Medicine.

"Allergic and Non-Allergic Treatment of Asthma"—Dr. Warren T. Vaughan, Vaughan-Graham Clinic, Richmond, Va.

"Tumors of the Kidney in Children"—Dr. Herman L. Kretschmer, Clinical Professor of Surgery (Genito-Urinary), Rush Medical College.

"Cancer of the Stomach"—Dr. Howard K. Gray, Assistant Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"Treatment and Complications of Whooping Cough"—Dr. Gerald S. Shibley, Associate Clinical Professor of Medicine, Western Reserve University School of Medicine.

7:00 P.M.

Addresses

"The Treatment of Vesico-Colonic Fistula"—Dr. Charles W. Mayo, Assistant Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"General Problems of Old Age"—Dr. Lewellys F. Barker, Professor Emeritus of Medicine, Johns Hopkins University School of Medicine.

"Coronary Artery Disease"—Dr. Roy W. Scott, Professor of Clinical Medicine, Western Reserve University Medical School.

"Modern Treatment of Scoliosis"—Dr. Alan deForest Smith, Clinical Professor of Orthopedic Surgery, Columbia University College of Physicians and Surgeons.

"The Treatment of Acute Traumatic Intracranial Hemorrhage"—Dr. Eric Oldberg, Professor of Neurology and Neurological Surgery, University of Illinois College of Medicine.

"Successful Defibrillation of the Human Ventricles, the Establishment of a Resuscitation Squad in our Hospitals" (motion pictures)—Dr. Claude S. Beck, Associate Professor of Surgery, Western Reserve University School of Medicine.

WEDNESDAY, OCTOBER 16

8:00 A.M.

Diagnostic Clinics

"Pre-Symptom Tuberculosis"—Dr. Raymond C. McKay, Assistant Clinical Professor of Medicine, Western Reserve University School of Medicine.

"Cancer of the Rectum"—Dr. Thomas E. Jones, Cleveland Clinic.

"The Various Forms of Edema with the Me-

chanism of Production and Treatment"—Dr. Italo F. Volini, Clinical Professor of Medicine, Loyola University School of Medicine.

"Hernia"—Dr. W. Wayne Babcock, Professor of Surgery and Clinical Surgery, Temple University School of Medicine.

"Diagnosis and Management of Hepatocellular Jaundice"—Dr. Henry L. Bockus, Professor of Gastro-Enterology, University of Pennsylvania Graduate School of Medicine.

1:00 P.M.

Diagnostic Clinics

"Contact Dermatitis and Its Differentiation"—Dr. Frank C. Knowles, Professor of Dermatology, Jefferson Medical College.

"Deficiency Syndromes Commonly Seen in America"—Dr. James S. McLester, Professor of Medicine, University of Alabama School of Medicine.

Addresses

"Surgery of the Gallbladder and the Bile Ducts"—Dr. Roscoe R. Graham, Assistant Professor of Surgery, University of Toronto Faculty of Medicine.

"Esophagology in Relation to General Medicine"—Dr. Chevalier Jackson, Honorary Professor of Broncho-Esophagology, Temple University School of Medicine, and Dr. Chevalier L. Jackson, Professor of Broncho-Esophagology, Temple University School of Medicine.

"Common Errors in the Selection of Patients for Surgery"—Dr. Irvin Abell, Clinical Professor of Surgery, University of Louisville School of Medicine.

"Poliomyelitis, Early Diagnosis and Treatment"—Dr. John A. Toomey, Associate Professor of Pediatrics, Western Reserve University School of Medicine.

"Endocrine Factors in Gynecological Disease"—Dr. Otto H. Schwarz, Professor of Clinical Obstetrics and Gynecology, Washington University School of Medicine.

"The Management of the Acute Abdomen in Children"—Dr. Charles H. Phifer, Professor of Surgery, University of Illinois School of Medicine.

7:00 P.M.

Informal Assembly Dinner

For members of the profession, their ladies and friends.

Dr. Chevalier Jackson, President of the Inter-State Postgraduate Medical Association of North America, master of ceremonies.

Addresses

Dr. Ross T. McIntire, Surgeon-General, United States Navy, Washington, D. C.

Dr. Nathan B. Van Etten, President, American Medical Association, New York, N. Y.

THURSDAY, OCTOBER 17

8:00 A.M.

Diagnostic Clinics

"Removal of Right Cerebral Hemisphere for Infiltrating Glioma"—Dr. Louis Karnosh, Associate Clinical Professor of Nervous Diseases, Western Reserve University School of Medicine,

and Dr. W. James Gardner, Chief of Neurosurgery, Cleveland Clinic.

"Medical and Surgical Aspects of Chronic Ulcerative Colitis"—Dr. Henry Cave, Assistant Clinical Professor of Surgery, and Dr. Thomas Mackie, Assistant Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons.

"Obesity"—Dr. Robert W. Keeton, Professor of Medicine, University of Illinois College of Medicine.

"Diverticulitis"—Dr. Claude F. Dixon, Associate Professor of Surgery, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"Gold Therapy in Rheumatoid Arthritis"—Dr. Russell L. Cecil, Professor of Clinical Medicine, Cornell University Medical College.

1:00 P.M.

Diagnostic Clinics

"Surgical Treatment of Peripheral Vascular Disease"—Dr. Alfred W. Adson, Professor of Neurosurgery, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"Diagnosis and Treatment of Myxedema"—Dr. Cyrus C. Sturgis, Professor of Internal Medicine, University of Michigan School of Medicine.

Addresses

"Acute Surgical Abdomen"—Dr. Elliott C. Cutler, Moseley Professor of Surgery, Harvard University Medical School.

"Infections of the Urinary Tract"—Dr. William F. Braasch, Professor of Urology, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"Malignancy of the Colon"—Dr. Charles Gordon Heyd, Clinical Professor of Surgery, New York Postgraduate Medical School.

"Relationship of Ophthalmology to Systemic Disease"—Dr. William L. Benedict, Professor of Otolaryngology, Rhinology and Laryngology, University of Minnesota Graduate School of Medicine, Mayo Clinic.

"Clinical Report and Evaluation of Low Temperature in Treatment of Cancer"—Dr. Temple Fay, Professor of Neurology and Neurosurgery, Temple University School of Medicine.

"Choice of Anesthesia"—Dr. John S. Lundy, Professor of Anesthesia, University of Minnesota Graduate School of Medicine, Mayo Clinic.

7:00 P.M.

Addresses

"Treatment of the Menopause"—Dr. Elmer Sevringhaus, Professor of Medicine, University of Wisconsin School of Medicine.

"Physiological and Clinical Aspects of Intubation of the Small Intestine"—Dr. W. Osler Abbott, Philadelphia.

"Surgical Aspects of Gastro-Intestinal Hemorrhage"—Dr. Eldridge L. Eliason, John Rhea Barton Professor of Surgery, University of Pennsylvania School of Medicine, and Dr. Julian Johnson, Philadelphia.

"Treatment of Luetic Aortitis"—Dr. James E. Paullin, Professor of Clinical Medicine, Emory University School of Medicine.

"Benign Lesions of the Neck" (slides)—Dr. Robert S. Dinsmore, Cleveland Clinic.

FRIDAY, OCTOBER 18

8:00 A.M.

Diagnostic Clinics

"Leukemia, Diagnosis, and Treatment"—Dr. Claude E. Forkner, Assistant Professor of Clinical Medicine, Cornell University School of Medicine.

"Shoulder Joint Injuries"—Dr. John J. Moorhead, Professor of Clinical Surgery, New York Postgraduate Medical School.

"Diseases of the Aorta"—Dr. Wallace M. Yater, Professor of Medicine and Director of the Department, Georgetown University School of Medicine.

"Diabetes: Its Complications"—Dr. Elliott P. Joslin, Clinical Professor of Medicine, Harvard University Medical School.

"Surgery of the Esophagus"—Dr. Frank H. Lahey, Lahey Clinic, Boston.

1:00 P.M.

Diagnostic Clinics

"Special Problems in Surgery of the Aged Patient"—Dr. George Crile, Sr., and Dr. George Crile, Jr., Cleveland Clinic.

"Tumors of the Breast"—Dr. John F. Erdmann, Attending Surgeon, New York Postgraduate Medical School.

"Treatment of Pernicious Anemia"—Dr. George R. Minot, Professor of Medicine, Harvard University Medical School.

Addresses

"The Modern Treatment of Congestive Heart Failure"—Dr. George Herrmann, Professor of Clinical Medicine, University of Texas School of Medicine.

"Pathological Lesions of the Larynx" (colored movie)—Dr. Dean M. Lierle, Professor of Otolaryngology, State University of Iowa College of Medicine.

"Herniated Nucleus Pulposus: Its Symptoms and Diagnosis"—Dr. Bernard H. Nichols, Cleveland Clinic.

Recent Marriages

Recent marriages of Ohio physicians include the following: Miss Mary Jane Hill, Evanston, and Dr. Wm. T. Foley, Cincinnati; Miss Helen Cross and Dr. Wm. H. Schumacher, Jr., Canton; Miss Mary Jane Nutter, Chesterhill, and Dr. Robert P. Bogniard, Ashland; Miss Marjorie Ann Rollin, Milwaukee, Wis., and Dr. Robert Schneider, Cleveland; Miss Betty Loveland, Youngstown, and Dr. Henry C. Marsico, Lorain; Miss Margaret Scott and Dr. Gordon H. Sprague, Cincinnati; Miss Nancy Evans and Dr. H. Bryan Hutt, Youngstown; Miss Margaret King, Canton, and Dr. Robert Louis Graham, Columbus; Miss Inez A. Johnson, McCutchenville, and Dr. Jesse J. Heaton, Tiffin; Miss Esther Johansmann and Dr. E. Kenneth Hatton, Cincinnati; Miss Eula Baker, Columbus, and Dr. Arnold B. Kurlander, Cleveland; Miss Carolin Mahler Heller and Dr. Victor F. Woldman, Cleveland.

In Memoriam

Joseph T. Berry, M.D., Cincinnati; Eclectic Medical College, 1883; aged 79; died July 18. Dr. Berry practiced in Cincinnati for 30 years, retiring 10 years ago. His widow survives.

Arno Edward Bohm, M.D., Akron; University of Wooster, Medical Department, 1907; aged 61; former member of the Ohio State Medical Association and the American Medical Association; died August 12. Dr. Bohm was a captain in the Medical Corps of the U. S. Army during the World War. He was a charter member of the Doctors' Symphony Orchestra, founded in Akron in 1926. Two brothers and two sisters survive.

Audrey Louise Bowers, M.D., Columbus; Ohio State University College of Medicine, 1929; aged 36; former member of the Ohio State Medical Association and the American Medical Association; died July 30. Dr. Bowers was on the staff at the Columbus State Hospital. She had also engaged in private practice in Columbus.

Harry E. Cover, M.D., Bantam; Medical College of Ohio, Cincinnati, 1897; aged 68; member of the Ohio State Medical Association and the American Medical Association; died July 22. A native of Clermont County, Dr. Cover had practiced there for nearly 44 years. His mother survives.

Allen G. Crow, M.D., Newark; Ohio State University College of Medicine, 1915; aged 50; member of the Ohio State Medical Association and the American Medical Association; died August 5. Dr. Crow practiced in Newark for 18 years. During the World War he served overseas with the 35th Division Engineers. Dr. Crow was vice-president of the Licking County Medical Society, a member of the Masonic Order, Loyal Order of Moose and the Veterans of Foreign Wars. Surviving are his widow, his mother, a son, a sister and a brother.

Raymond Glenn DeVoist, M.D., Cincinnati; University of Michigan Homeopathic Medical School, Ann Arbor, Mich., 1914; aged 52; died July 12. Dr. DeVoist had been superintendent of the Anti-Tuberculosis League of Cincinnati for 17 years. A former national president of Phi Alpha Gamma, he was also active in the local University of Michigan Alumni Association and the Walnut Hills Methodist Church. His widow and a brother survive.

Joseph Aloysius Duffey, M.D., Cincinnati; Eclectic Medical College, 1913; aged 50; member of the Ohio State Medical Association and the American Medical Association; died July 9. Dr. Duffey practiced in Cincinnati for 27 years. Dur-

ing the World War he served in the Medical Corps of the U. S. Army. Dr. Duffy was a member of the Catholic Church and the American Legion. His widow, two sons and two brothers survive.

Theodore D. Foljambe, M.D., Madison; Cleveland Medical College, Homeopathic, 1891; aged 70; died July 29. A resident of Madison for 28 years, Dr. Foljambe had previously practiced in Cleveland. He was the Cleveland district manager for the Maccabee Lodge, and was a member of the Masonic Order and the Eastern Star. A son and a daughter survive.

Filip Carolus Forsbeck, M.D., Cincinnati; Rush Medical College, University of Chicago, 1926; aged 40; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 14. A surgeon in the United States Public Health Service, Dr. Forsbeck was assigned to Cincinnati a year ago to take charge of epidemiological investigation at the Public Health Service's stream pollution investigation station there. Surviving are his widow, a son, and his parents, Dr. and Mrs. Filip Forsbeck, Milwaukee, Wisc.

Robert Dixon Gibson, M.D., Youngstown; Western Reserve University School of Medicine, 1880; aged 85; former member of the Ohio State Medical Association, the American Medical Association and the American College of Surgeons; died July 18. A former president of the Mahoning County Medical Society, Dr. Gibson practiced in Youngstown for nearly 50 years, retiring in 1928. Prominent in civic affairs, he was a charter member of the Youngstown Club and the Youngstown Country Club, a member of the Masonic Order and the Presbyterian Church. He was one of the original members of the Youngstown Hospital staff and a leader in the establishment of the North Side Unit. His widow and two daughters survive.

William Frederick Golling, M.D., Bedford; Cleveland University of Medicine, 1887; aged 80; died June 29. Dr. Golling practiced in Bedford for nearly 50 years. In ill health for the past two years, he had been confined to the hospital at the Masonic Home, Springfield, for two months prior to his death. He had served as master of the Bedford Masonic Lodge. Two brothers survive.

Joseph Arda Hall, M.D., Cincinnati; Miami Medical College, 1897; aged 68; former member of the Ohio State Medical Association, the American Medical Association and the American

College of Surgeons; died August 8. Dr. Hall first practiced in Troy and later in Cincinnati with his father, the late Dr. Rufus B. Hall. Chief surgeon of the Ohio National Guard at the time of the World War, he served overseas as lieutenant-colonel and division surgeon of the 37th Division. Dr. Hall was later commissioned a colonel in the Medical Corps Reserve and from 1919 until 1925 was on the staff of the United States Public Health Service. In 1929 he retired from the practice of medicine to become a partner in the brokerage firm of W. E. Hutton and Company. His widow, a brother and a sister survive.

George E. Kerns, M.D., Galion; Eclectic Medical College, Cincinnati, 1903; aged 67; died August 13. Dr. Kerns practiced at Spring Hill for 16 years, locating in Galion in 1919. He had been retired for several years. Surviving are his widow, a brother and two sisters.

Joshua R. McCally, M.D., Dayton; Eclectic Medical College, Cincinnati, 1890; aged 77; died July 8. A practicing physician in Dayton for nearly 50 years, Dr. McCally was a life member of the Masonic Order, a member of the Y.M.C.A. and the Methodist Church. Surviving are his widow, a daughter, a son, Dr. A. W. McCally, Dayton, and a brother.

William James Reuter, M.D., Ohio City; University of Cincinnati College of Medicine, 1913; aged 51; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 1. Dr. Reuter had practiced in Ohio City since 1920. Active in community affairs, he had been a member of the village council and the board of public affairs, and was Democratic candidate for coroner at the November election. Dr. Reuter was vice-president of the Van Wert County Medical Society in 1932. His widow, two daughters, his mother, two brothers and a sister survive.

Charles A. Rufin, M.D., Louisville; University of Wooster, Medical Department, Cleveland, 1906; aged 60; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 30. Dr. Rufin practiced in Louisville for 34 years. He was a member of the Catholic Church. Two brothers and a sister survive.

Wilbur Jay Sawyer, M.D., Cleveland; Cleveland-Pulte Medical College, 1913; aged 53; died July 15. Dr. Sawyer practiced in Cleveland for 27 years. He was a member of the staff of Lutheran Hospital, and a member of the Masonic Order. A daughter and a son survive.

Edward Lowell Saylor, M.D., Akron; University of Kansas School of Medicine, Lawrence, Kansas, 1925; aged 40; member of the Ohio State

Medical Association; Fellow of the American Medical Association; member of the American Society of Clinical Pathologists and a diplomate of the American Board of Pathology; died August 10. Dr. Saylor had been pathologist at the Akron City Hospital for nine years. His widow and his mother survive.

John William Shook, M.D., Canal Winchester; Columbus Medical College, 1885; aged 88; died July 15. Dr. Shook retired last January after 55 years of practice in Canal Winchester. His widow and two daughters survive.

John Calvin Simon, M.D., Cleveland; Eclectic Medical College, Cincinnati, 1889; aged 73; died August 6. A former coroner of Cuyahoga County, Dr. Simon practiced in Cleveland for 51 years. His widow and a brother survive.

Murray Ross Watson, M.D., Mineral City; Michigan College of Medicine and Surgery, Detroit, 1898; aged 65; member of the Ohio State Medical Association and the American Medical Association; died July 14. Dr. Watson practiced in Mineral City for 19 years. A daughter and two sisters survive.

Harry E. Welch, M.D., Youngstown; Western Reserve University School of Medicine, 1885; aged 79; former member of the Ohio State Medical Association, the American Medical Association and the American College of Physicians; died August 13. Dr. Welch was health commissioner of Youngstown from 1893 to 1932.

Emily Wright, M.D., Springboro; Woman's Medical College of Pennsylvania, Philadelphia, 1889; aged 81; died July 13. A native of Springboro, Dr. Wright practiced at Rock Island, Ill., for 25 years, returning to her home in 1917, and continuing practice there until her retirement a few years ago. Two sisters survive.

Open New Offices

Physicians who have recently established new locations in Ohio include the following: Dr. Sydney Lord, Mineral City; Dr. Harold E. Ray, Xenia; Dr. Richard A. Cunningham, Defiance; Dr. Charles W. Consolo, Tiffin; Dr. Harry W. Topolsky, Columbus; Dr. James R. Glier, Greenfield; Dr. D. J. Parsons, Tipp City; Dr. M. G. Harnick, Middleport; Dr. Edward G. Seybold, Newark; Dr. Anthony F. Piraino, Oberlin; Dr. Herbert P. Ramsayer, Canton; Dr. M. J. Thomas, Cambridge; Dr. J. Martin Myers, Greenfield; Dr. Joseph P. Fakehany, Toledo; Dr. Wm. R. Funderburg, Tiffin; Dr. Joseph Ridgeway, Columbus; Dr. Harold D. Waltz, Sandusky; Dr. W. E. Sovik, Campbell; Dr. Robert Jacobs, Springfield; Dr. Galen Rodebaugh, Basil; Dr. Dwight I. Roush, Continental; Dr. Herbert F. Kesinger, Kalida; Dr. E. R. Blower, Akron; Dr. Minor W. Seymour, Columbus.

THE HUMAN NEED FOR IODINE

● Like calcium and iron, iodine is commonly considered as an essential mineral which may be supplied in suboptimal amounts by American diets. Unlike calcium and iron, the human daily requirement for iodine cannot be as closely approximated as can the human needs for those two minerals.

Many researches (2) have established that a deficiency of iodine in food and water may produce a derangement of the thyroid gland known as simple or endemic goiter. The management of this condition, once present, is properly a matter for competent medical attention. However, it is agreed that normally the prevention of endemic goiter is purely a nutritional problem and that control of this disorder can be effected by providing for an adequate daily supply of iodine. It has been suggested (1, 2) that the probable human iodine requirement lies between 0.05 and 0.10 milligram per day, the higher amount being indicated for children and for pregnant and lactating women.

Due to the fact that the foods and water in certain regions—especially the so-called “goiter belt”—are low in iodine content,

obviously some means of enhancing the iodine intake of persons residing in such localities should be provided. For this purpose, iodized salt has been proven most effective and is commonly favored for use under such circumstances (3). However, the low incidence of endemic goiter in seaboard localities—in which the plant and animal foods are exceptionally high in iodine—suggests the potential value of food sources of iodine.

Under normal circumstances, in goiterous regions, main dependence should be placed on iodized salt as a source of iodine. However, the value of foods high in content of this essential mineral should not be overlooked. As indicated above, foods grown in the coastal areas are exceptionally high in iodine; in addition, fish and marine products from coastal waters are also rich food sources of this element. Consequently, such foods—many of which are available as commercially canned foods—should serve as economical and convenient supplementary sources of iodine. Through intelligent use of iodized salt and the available food sources of iodine, an optimal daily supply of this dietary essential should readily be obtained.

AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

REFERENCES

(1) 1939. Mineral Metabolism, Alfred T. Shohl, Reinhold, New York, N. Y.

(2) 1939. Food & Life, Yearbook of Agriculture, U. S. Dept. of

Agriculture, U. S. Govt. Printing Office, Washington, D. C.

(3) 1939. General Decisions, Council on Foods, Amer. Med. Assoc., Chicago.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-third in a series, which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Activities of County Societies

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

Dr. Marion W. Coleman, Dayton, gave an interesting and instructive lecture on "Cystitis in Women", at a meeting of the Greene County Medical Society, Thursday, August 1, at Xenia.

The society adopted a proposed plan for the medical care of clients of the Farm Security Administration, and appointed the board of censors as the governing body to administer the plan. The society also agreed to sponsor a venereal clinic in the local health district.—Donald F. Kyle, M.D., secretary.

Third District

(COUNCILOR: GUY E. NOBLE, ST. MARYS)

AUGLAIZE

Nineteen members and ten visitors attended a meeting of the Auglaize County Medical Society, Thursday, August 8, in the Community Library Room, St. Marys. Dr. Frederic G. Maurer, Lima, spoke on "Rheumatic Heart Disease", and Dr. F. Blair Webster, Bellefontaine, explained the medical care plan of the Farm Security Administration.—Chas. C. Berlin, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

OTTAWA

Members of the Ottawa County Medical Society held a meeting recently to organize the staff for the H. B. Magruder Memorial Hospital which will open at Port Clinton in a short time. The following staff officers were elected: Dr. Alfred D. Miessner, president; Dr. C. C. Sheldon, vice president, and Dr. C. R. Wood, secretary, all practicing in Port Clinton.—News clipping.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

GEAUGA

Dr. Wallace S. Duncan, Cleveland, spoke on "Fractures of the Hip and Spine", at a meeting of the Geauga County Medical Society, at Chardon, Wednesday, July 24.—News clipping.

LAKE

Dr. and Mrs. C. B. Elliott entertained members of the Lake County Medical Society with a

picnic at their home in Mentor Headlands, Wednesday, July 17.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

JEFFERSON

Cy Hungerford, noted Pittsburgh cartoonist and entertainer, was guest speaker at the annual summer meeting of the Jefferson County Medical Society at the Steubenville Country Club, Thursday, July 11. Mrs. S. J. Podlewski gave a report on the formation of the Woman's Auxiliary to the Ohio State Medical Association at Cincinnati in May, in which she participated as a delegate from the society.—D. R. Cahill, M.D., secretary.

TUSCARAWAS

Initial steps were taken to form a Woman's Auxiliary to the Tuscarawas County Medical Society at a meeting of the society, Thursday, July 11, at Dr. Max Shaweker's cabin. While members of the society heard County Prosecutor Ralph Finley discuss poor relief, their wives held a separate meeting to discuss plans for the Auxiliary. Mrs. Walter W. H. Curtiss, Dennison, President-Elect of the Woman's Auxiliary to the Ohio State Medical Association, was in charge of the meeting. A committee was appointed to meet with an advisory group from the society to draw up a constitution.—David H. Allen, M.D., secretary.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. R. A. Ramsey, Columbus, spoke on "Hypothyroidism", at the bi-monthly luncheon meeting of the Guernsey County Medical Society, Thursday noon, July 11, at the Berwick Hotel, Cambridge. Dr. Henry L. Wells was in charge of the program presented at a luncheon meeting of the society, Thursday noon, July 25.—O. Reed Jones, M.D., correspondent for *The Journal*.

PERRY

"Medical Care of the Indigent", was the subject discussed by Hugh McTeague, state relief examiner and Rexford Allen, county relief director, at a dinner meeting of the Perry County Medical Society, Thursday, July 18, at the Park Hotel, New Lexington.—News clipping.

Cincinnati—Dr. Carl A. Wilzbach, city health commissioner, is directing a study of the operation of local rest homes.



THIAMINE HYDROCHLORIDE SQUIBB

(CRYSTALLINE SYNTHETIC VITAMIN B₁ HYDROCHLORIDE)

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All potencies available in bottles of 50, 100, 250, 500 and 1000 tablets.

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Program Drafted for State Hospital Physicians' Meeting, October 3-4

Semi-annual meeting of the Ohio State Hospital Physicians' Association, to be held at Longview Hospital, Cincinnati, Thursday and Friday, October 3 and 4, will be opened at 10 A.M., Thursday, with addresses of welcome by Hon. Charles L. Sherwood, State Director of Public Welfare; Dr. R. E. Bushong, State Commissioner of Mental Diseases, and Dr. E. A. Baber, superintendent of Longview Hospital.

At 10:30 A.M., Dr. W. T. Gordon, Cincinnati, will speak on "Organization of Ex-patients, Longview Hospital", discussion to be opened by Dr. Leonard Dub, Columbus. Other speakers at the Thursday morning session will be Dr. N. W. Kaiser, Toledo, "Experiences with Alcoholics", to be followed by a general discussion; A. H. Wichert, D.D.S., Cleveland, "Present Status of State Hospital Dentists", discussion opened by Dr. T. V. Hoagland, Cleveland.

Following luncheon, there will be a business session at 1:30 o'clock and a roundtable conference at 2 o'clock, on "The Family and State Hospitals", with Dr. N. Michael, Columbus, as moderator.

A moving picture, "Application of the Smith-Peterson Nail", will be shown at 4 o'clock by Dr. C. C. Voorhis and A. H. Wichert, D.D.S., Cleveland. Guest speaker at the banquet, to begin at 6 o'clock, will be Dr. David A. Boyd, Jr., chairman of the department of neurology and psychiatry and professor of psychiatry, University of Indiana School of Medicine.

The Friday morning session, beginning at 9:30 o'clock, will consist of the following papers, limited to 20 minutes, with 10 minutes for discussion: "Altered Considerations in the Treatment of Involution Psychoses", Dr. N. O. Rothermich, Columbus, and Dr. B. Postle, Athens, with discussion opened by Dr. Marion Stephens, Cincinnati; "Electric Shock Therapy", Dr. D. Goldman, Cincinnati, discussion opened by Dr. Esther B. Tietz, Cincinnati; "Spongioblastoma of the Basal Nuclei", Dr. A. V. Black, Dayton, discussion opened by Dr. J. M. Wittenbrook, Columbus; "Benzedrine Sulphate in the Treatment of Epilepsy", Dr. George H. Cook and Dr. John Dole, Gallipolis, discussion opened by Dr. Arthur Hopwood, Orient; "Parallelism Between Pathological and Psychopathological Terminology", Dr. Charles L. Langsam, Dr. I. Malbin and Dr. G. H. Williams, Jr., Macedonia, discussion opened by Dr. N. Michael, Columbus.

A symposium on "Vitamin Deficiencies" will be given Friday at 1:30 o'clock, with Dr. J. M. Wittenbrook, Columbus, as moderator. Dr. Tom Spies, Cincinnati, has been asked to open the symposium with a review of new developments. Members of the staff of Longview Hospital will

present a clinical-pathological conference at 3:30 o'clock. The meeting will close with a business session at 4:30 o'clock.

Officers of the Ohio State Hospital Physicians' Association are: Dr. Ewing Crawfis, Lima, president, and Dr. I. S. Ryan, Massillon, secretary.

Toledo—The Toledo Public Health Association and the Lucas County Public Health Association have combined into one group. Dr. B. S. Dunham is president of the new organization, and Dr. Howard Holmes is representative director. Other physicians on the board of trustees are Dr. Foster Myers and Dr. A. A. Brindley.

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Sanitary Improvements and Activities in Ohio Show Increase in 1939

Municipal sanitary improvements completed or placed under construction reached a new peak in volume and valuation during 1939, according to the annual report of the Division of Sanitary Engineering, State Department of Health, for the year ending December 31, 1939, recently issued by Chief Engineer F. H. Waring. The valuation of new municipal water projects in 24 cities and 44 villages was \$9,304,900; major sewerage improvements in 25 cities and 45 villages, \$9,136,575; school building water and sewerage projects, \$117,700, making a total of \$18,586,175. This valuation of sanitary projects for 1939 is 24 per cent greater than in 1938, and 58 per cent greater than the average for the past 11 years.

The report shows that on account of the demands incident to new construction work, the annual examination of existing public water supplies suffered during the year, only 40 per cent of the state's 410 separate water supply systems being examined during the year.

Approval of plans for new sanitary works were granted in the case of 279 major projects, while minor W.P.A. projects approved numbered 472.

Milk sanitation effort was conducted in 31 counties, 29 cities and 5 villages. This work included 164 surveys, 158 visits to instruct local milk sanitarians and 42 field visits of promotional nature.

Outbreaks of communicable diseases were investigated by the division on six occasions. Two were typhoid fever (total, 8 cases); one was a suspected milk-borne gastro-enteritis epidemic (60 to 70 cases); one was a suspected milk-borne septic sore throat outbreak (indefinite number of cases); one was a group food poisoning occurrence (21 persons affected); and one was a bacillary type dysentery outbreak (21 cases).

An important undertaking of the division was a special milk waste treatment study extending

over a 30-day test period and covering a plant scale observation of the performance of waste treatment devices at three existing milk processing plants in western Ohio. A special bulletin containing the results of the study is now in preparation.

The report points out that the Ohio River Valley Water Sanitation Compact was adopted by the state legislature in 1939. Other states which enacted legislation embodying this compact during the year were Indiana, West Virginia, New York and Illinois. Pennsylvania failed to adopt and Kentucky's legislature did not meet last year.

During the year, the division's three plumbing inspectors made field inspections for 2,358 projects, as contrasted to the 1938 performance of field inspections for 2,064 projects.

Certification of operating personnel of water and sewage treatment works was extended during 1939 by means of examinations held at five cities in the state. As a result, 136 additional water treatment certificates and 136 sewage treatment certificates were issued. There are now outstanding certificates issued to 486 water treatment operators and 320 sewage treatment operators.

Field work incident to the division's activities increased during 1939 by 8 per cent over 1938 and about 12 per cent over the average for the last 11 years. This increase was due largely to special survey activity, particularly milk sanitation effort.

Wins Chest Surgery Award

Dr. Paul W. Gebauer, Cleveland, was the first recipient of the Rose Lambert Graff prize of \$250 for the best paper on chest surgery, which was presented at the closing session of the American Association for Thoracic Surgery held in Cleveland recently. Competition for the award, offered by the Rose Lampert Graff Foundation, Los Angeles, is open to any physician in the United States or Canada.

BODY-SECTION RADIOGRAPHY

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A program will be mailed to every member of the medical profession in good standing in the United States and Canada on or about September first. Any member of the profession in good standing who does not receive a program, please write the Managing-Director and one will be mailed.

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Civil Service Examinations To Be Held for Medical Officer

The United States Civil Service Commission has announced open competitive examinations to fill medical officer positions in the United States Public Health Service and Food and Drug Administration, Federal Security Agency; Veterans Administration; Civil Aeronautics Authority, Department of Commerce; and Indian Service, Department of the Interior.

The examinations cover three grades with salaries ranging from \$3,200 to \$4,600, subject to a deduction of 3½ per cent toward a retirement annuity. Applications must be filed with the United States Civil Service Commission, Washington, D.C., and will be rated as received until further notice.

Applicants must have been graduated with an M.D. degree from a recognized medical school, and must have had professional experience in one of the following optional branches: Aviation medicine; cancer research; cardiology; dermatology; eye, ear, nose, and throat (singly or combined); general practice; industrial medicine; internal medicine and diagnosis; medical pharmacology; neuropsychiatry; pathology, bacteriology, and roentgenology (singly or combined); public health; surgery; tuberculosis; and urology. For some positions in the Veterans Administration, applicants for associate medical officer, paying \$3,200 a year, need not have had experience other than one year of internship. Applicants for the associate grade must not have passed their fortieth birthday, and for the other two grades they must not have passed their fifty-third birthday.

Further information regarding the examinations, and the detailed requirements, are given in the formal announcement. Announcements and application forms may be obtained from the Secretary of the Board of U. S. Civil Service Examiners at any first or second-class post office, or from the U. S. Civil Service Commission, Washington, D. C.

Orthopaedists Form Club

The Buckeye Orthopaedic Club of Ohio was formed May 14, during the Annual Meeting of the Ohio State Medical Association at Cincinnati. The purpose of the club is to hold a clinical meeting at the same time and place as the Annual Meeting of the State Association. Membership in the club is by election. All diplomates of the American Board of Orthopaedic Surgery are eligible for membership. Officers elected were Dr. Albert H. Freiberg, Cincinnati, president (now deceased); Dr. Burt G. Chollett, Toledo, president-elect; and Dr. Edward Harlan Wilson, Columbus, secretary.

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- FRACTURES & TRAUMATIC SURGERY**—Ten Day Intensive Course starting September 23rd. Informal Course every week.
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- OBSTETRICS**—Two Weeks Intensive Course starting October 21st. Informal Course every week.
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News Notes

Akron—Dr. W. S. Henderson is the 1940 golf champion of the Summit County Medical Society. He shot a 79 at the Portage Country Club August 14, when the society held its annual outdoor frolic. Runners-up were Dr. A. E. Davis and Dr. C. Brennan with 84's. Dr. C. F. Wharton, 1939 champion, with an 86, was tied by Dr. H. A. Haynes.

Cincinnati—A bequest of \$20,000 to the University of Cincinnati College of Medicine, one-half to provide income for use by the department of surgery and the other half for the department of internal medicine, was contained in the will of the late Mrs. Sarah Scarborough Smythe.

Dayton—Dr. Warren C. Breidenbach spoke on "Tuberculosis" at a meeting of the Bellefontaine Kiwanis Club.

Delaware—Dr. Henry Bachmann, for the past two and one-half years a member of the staff at Rocky Glen Sanatorium, McConnelville, is now resident physician at Jane M. Case Tuberculosis Sanatorium.

Hamilton—Staff officers of Fort Hamilton Hospital are: Dr. Merle Flenner, president; Dr. Daniel M. Skinner, vice-president; Dr. Neil Millikin, secretary; and Dr. Malcolm O. Cook and Dr. Corliss R. Keller, members of the executive committee.

Lakewood—Dr. R. B. Crawford is the new superintendent of Lakewood City Hospital.

Martins Ferry—Dr. Charles B. Messerly has been appointed to the national board of the laymen's missionary movement, which will confer Nov. 15-17 at Buck Hills, Pa., on the mission situation throughout the world.

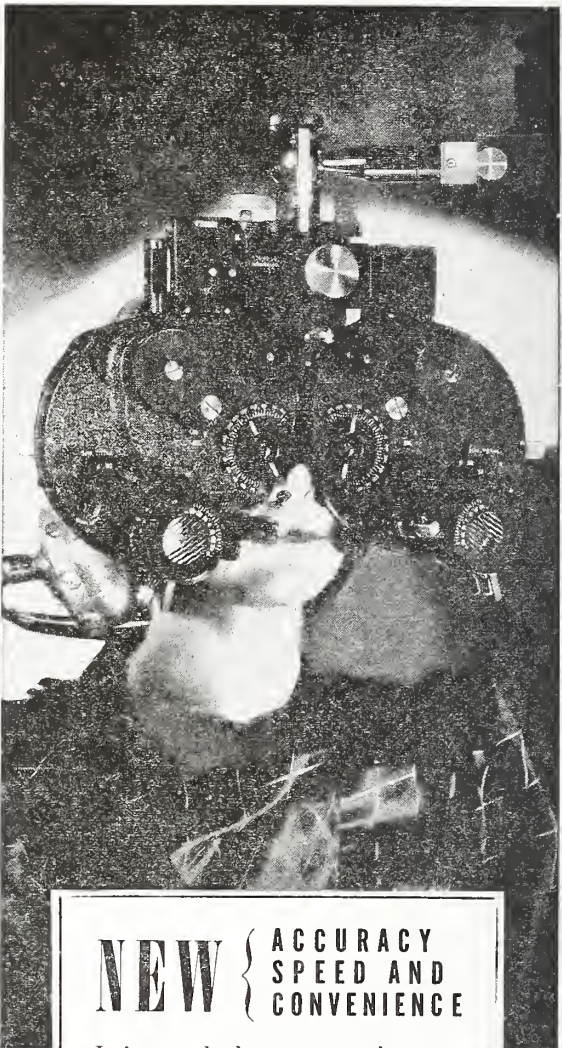
Medina—Fifteen physicians and members of the staff of Lodi Hospital gave a surprise dinner for Dr. H. P. H. Robinson upon his retirement from active medical practice to devote full time to his duties as Medina County health commissioner.

Napoleon—Dr. L. E. Overhulse has been reappointed health commissioner of Henry County for a two-year term ending January 1, 1942.

New Lexington—The Pennsylvania Railroad Company recently presented a 50-year veteran's pin to Dr. J. G. McDougal, who has been surgeon for that company here for 55 years.

Newton—Dr. Myrta M. Adams is a candidate for the local board of education, to fill the vacancy caused by the death of her husband, the late Rev. C. V. Adams.

Oxford—Dr. Earl H. Van Horn, Cincinnati, has been appointed head of the Student Health Service



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The percentages of fat, protein, carbohydrate and ash are the same as those in human milk and when prepared according to the physician's directions SMA is essentially similar to human milk.

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at Miami University, succeeding Dr. C. I. Stafford who resigned to become medical superintendent at the Ohio Masonic Home, Springfield.

Portsmouth—Dr. G. E. Neff has been appointed part-time pathologist at General Hospital, succeeding Dr. A. L. Brendt who resigned to become city health commissioner.

Sandusky—Dr. F. E. Mahla, Marion, former assistant state health director, has been appointed health commissioner of the combined health districts of Sandusky and Erie County.

Toledo—Dr. Norman B. Muhme won the tournament championship in competition with 150 golfing members of the Toledo Academy of Medicine, June 6. Four new trophies donated by various companies were awarded to the following in their respective age groups: Dr. James I. Collins, under 36, Commodore Perry Junior Trophy; Dr. R. C. Young, 36-45, Certified Milk Commission Trophy; Dr. Thomas F. Heatley, 46-55, Buettner and Breska Senior Trophy; Dr. James W. Rea, 56 and over, Dr. S. J. Coulter Grand-dad's Trophy. Dr. Muhme also won the Flower Hospital tournament held June 27. Other hospitals were to have tournaments during August.

West Union—Dr. Otto K. Engelke has resigned as health commissioner of Adams County to become associated with the Kellogg Health Foundation, Battle Creek, Mich.

Zanesville—Dr. William B. Faircloth spoke in opposition to the Wagner National Health Bill at a meeting of the Exchange Club.

Alien Registration Started

As part of the National Defense Program, a nationwide registration of aliens is being conducted by the Immigration and Naturalization Service of the U. S. Department of Justice. Registration will take place in the post offices of the nation.

Registration is made compulsory by the Alien Registration Act of 1940, which requires all non-citizens to register during the four-month official registration period. The law requires that all aliens 14 years or older are to be registered and fingerprinted; alien children under 14 to be registered by their parents or guardians.

A fine of \$1,000 and imprisonment of six months is prescribed by the Alien Registration Act for failure to register, for refusal to be fingerprinted, or for making registration statements known to be false.

The Alien Registration Act was passed so that the United States Government may determine exactly how many aliens there are, who they are, and where they are. The Act provides that all records be kept secret and confidential, available only to persons approved by the U. S. Attorney General.

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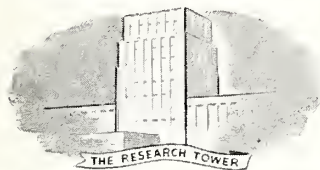
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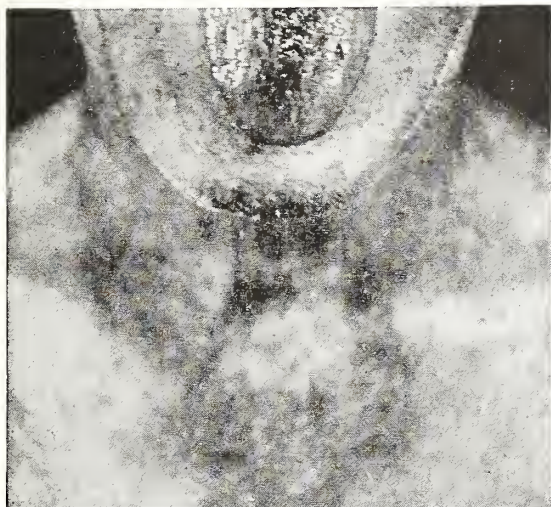
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STUDIES IN THE AVITAMINOSES



This page is the ninth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the August 17 issue of The Journal of the American Medical Association.



Casal's collar in a patient with advanced pellagra secondary to chronic alcoholism.

Illustration courtesy of Virgil P. W. Sydenstricker, M.D., University of Georgia Medical School, Augusta.

The scaling symmetrical pellagrous dermatitis of the hands.



The Dermatitis of Pellagra

The severe scaling dermatitis of the hands seen in most cases of advanced pellagra is pathologically identical with skin lesions developing elsewhere on the body surface. Microscopically, thickening of the skin, lymphocytic infiltration of the dermis, and hyaline degeneration of the intima of the smaller arterioles are observed. The early clinical changes consist of burning, tenderness, erythema, pigmentation, and mild vesiculation. The acute character of the eruption disappears after a variable period but if no treatment is instituted, the pigmentation becomes more intense and the scaling and desquamation

more severe. As with other pellagrous skin lesions, the dermatitis of the hands is bilateral and symmetrical, and is sharply demarcated from the adjacent normal skin.

The dermatitis which frequently appears on the neck is known as Casal's collar. The lesion assumes its peculiar distribution because of the provocative action of sunlight upon the skin of pellagrins. The neck, exposed to the influence of sunlight, is thus frequently the site of the pellagrous dermatitis. However, unexposed portions of the skin, notably the upper thighs and perineum, may become similarly involved.

The Physician's Bookshelf

Modern Wonder Books, published by the American Educational Press, Columbus, Ohio; \$16.00 for the complete set of 150 books or \$2.95 for 25 books at each of six age levels, complete with box and index. The series is well recognized for its worth as a classroom library because of the expertly graded vocabulary, sentence, and paragraph construction. At the same time, the context is such as to meet the usual needs of an educational library. It has been suggested that it might solve in part at least the problem of the reading table of a physician's waiting room.

There is a basis in fact for the age-old jokes about the literature found in the average physician's waiting room. All too often it is an expression of simple negligence, but those who have tried to keep current magazines become discouraged by the promptness with which the patients take them along to finish reading some article which they have not had time to do while they were in the office. All writers on office management stress the desirability of having attractive and up-to-date reading matter on the waiting room table.

The last few years have brought the picture magazines which have solved the problem in that the reader can stop any place in his reading and therefore is not so likely to carry off a current copy. In swanky offices, permanent binders, such as are used by clubs and railroads, are secured for the individual copies.

I have recently found the greatest help of all in these booklets. For nearly three months now, these 150 booklets have occupied a place in my waiting room, at times with current magazines and again by themselves. They have proven more attractive and entertaining to my patients, child and adult alike, than anything which I have ever used. Experimental work has shown that the paper stock upon which they are printed will withstand four years when in the school room. The cost of the 150 little books is about four years' subscription to one of the standard magazines and it will take the average patient with one weekly visit about four years to read them all.

Quarterly Journal of Studies on Alcohol, edited by Howard W. Haggard, of Yale (Vol. 1, No. 1, Quarterly Journal of Studies on Alcohol, 4 Hillhouse Ave., New Haven, Conn. \$3.00 per year)

is now the only publication of its kind and with its able board of editors should make a definite contribution to civilization. Our readers on this subject are usually emotional and even little science would help us face the problem of alcohol.

A few sentences from the important papers in the initial number should stimulate the curiosity of the thinking physician. "The American diet, already dangerously low in the B vitamins, is further significantly diminished by the average consumption of alcohol by the average American consuming an average diet". Again, "Experimental studies on morals and man fail to reveal that the consumption of alcohol in moderate doses is harmful to the normal, or even to the diseased kidney; the arteriosclerotic kidney is perhaps an exception to the rule." We shall look forward to the next issue, which promises articles on the metabolism of alcohol by Thorne M. Carpenter, the food value, by Harold Mitchell, et. al.

The International Medical Annual. A year-book of treatment (\$6.00. William Wood, Baltimore) is the 58th of the volumes to appear. It affords an excellent summary of the year from the British point of view. It is always stimulating to have an authoritative foreign presentation of medical progress.

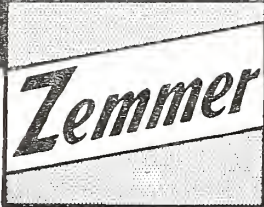
It Is Your Life. Keep Healthy; Stay Young; Live Long, by Dr. M. M. Rosenberg (*The Scholastic Book Press, 158 E. 22nd St., New York; \$2.50*), presents a direct personal appeal to the individual who wants to take care of his body in a far from materialistic viewpoint. The author attempts to teach the reader to avoid disease and preserve health in the knowledge that if successful the shortage of hospital space and medical service will also be overcome.

Compleat Pediatrician. By W. C. Davison, M.D. Third, 1940 Edition (\$3.75, *Duke University, Durham, N.C.*). In compiling this current revision the author has sifted some 3500 recent references and states that 10,000 lines of type were changed in bringing this compendium up to date. As usual, Dr. Davison has admirably succeeded in his efforts to not merely record the changes in pediatrics but to correlate in this volume these newer advances with the pre-existing knowledge. This modern and up-to-date digest remains out-

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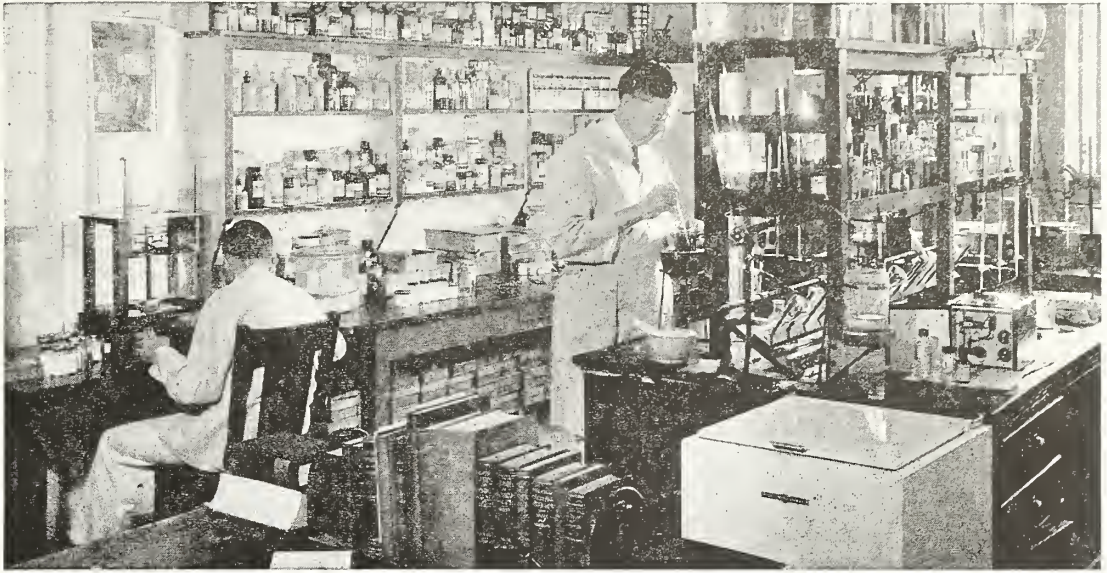
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standing among books in respect to its unique system of cross indexing pediatric diseases by their symptoms.

This third edition of the *Compleat Pediatrician*, like its predecessors, is heartily recommended to both general practitioner and pediatricist as a distinct diagnostic aid presented in a volume small enough to be carried in the medical bag, if desired. M. L. Ainsworth, M.D.

The Era Key to the U.S.P. XI and N.F. VI. Fifth Edition, revised by Lyman D. Fonda, Professor of Pharmacy, Brooklyn College of Pharmacy (\$1.00. *Haynes and George, 850 Broad St., Newark, New Jersey*), has been a standard and widely used reference since 1893. Its presence on the physician's desk will prove helpful to intelligent prescribing and dispensing.

Dr. Daniel Drake's Letters On Slavery, to Dr. John C. Warren, of Boston, Mass. (*Schuman's, New York, \$5.00*), makes good reading in the days of "other social gains" showing a cool, accurate analysis of the problem by a learned physician whose name was a household word yet whose advice went unheeded.

Bet It's a Boy, by Betty Bacon Blunt (\$1.00, *A Cider Press Book, Stephen Daye Press, Brattleboro, Vermont*), without resorting to a single written word tells more eloquently than could a fat volume the joys and vicissitudes of the nine months of infanticipation. This little cellophane-bound, loose-leaf collection of rough color sketches takes a young wife (and her ever-loving spouse) from the first days of suspicion and A-Z confirmation through the weeks of diet-watching, weight-gaining, bridge-table and old-aunty advice, sickening odors, clumsy movements, reception-room shyness, clothes-bulging, and belly kicks right into the delivery room. It's a safe bet the author has "been there" herself, probably more than once, and she must have a good memory. It convulses all multiparas with a sense of humor, and is virtually a "must" item for the reception room of all physicians who administer to "interesting" women.

Directory of Medical Specialists, Certified by American Boards, 1939, by Paul Titus, Directing Editor; J. Stewart Rodman, Associate Editor. (\$5.00. *Columbia University Press, New York*.) This, the only official directory of its kind, lists approximately 14,400 Diplomates certified by the twelve special American Boards and one of the two affiliate boards.

A separate section is devoted to each American Board, with both a geographic and a biographic listing of its Diplomates. In addition, there is a complete alphabetic list of all the 14,400 Diplomates. In this list there are addresses and indications of specialty certification, while in the

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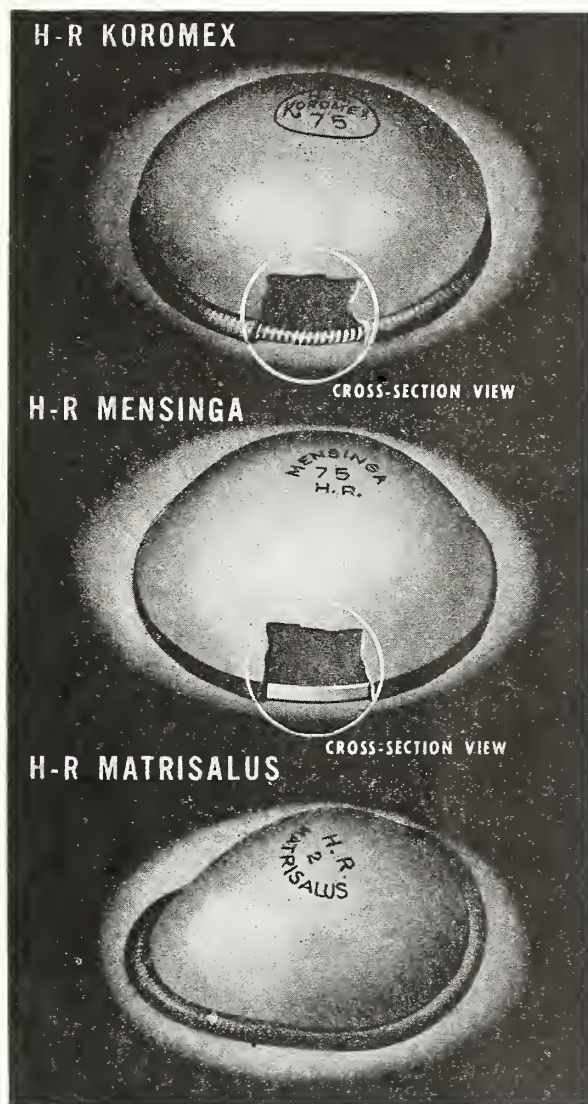
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geographic sections complete biographic information is given. The organization and examination requirements of each of the American Boards are explained in full.

My Life as a Search for the Meaning of Mediumship, by Eileen J. Garrett (\$3.00. *Oquaga Press, New York*), is the first volume by this internationally known medium—one of the very best. It is serious work and as such is informative as to the present status of the ever fascinating and little understood subject.

Feel Like Thirty at Fifty, by Edwin W. Hirsch, M.D. (*Research Publications, Chicago*), deals with prostate gland and senilism. The thesis is that prostate enlargement is the effect of a combination of factors. Infection (most often non-specific) injury to the prostatic muscle, and a diminution of male sex secretion are the provoking causes. Enlargement is not likely to develop, the author therefore maintains, in those who maintain a hygienic state of the generative parts.

Teach Yourself Child Care, by Harry S. Reynolds (\$1.00. *Fortuny's, New York*), is a manual written in the form of 316 practical questions and their answers.

The 1939 Year Book of Dermatology and Syphilology, edited by Fred Wise, M.D., and

Marion B. Salzberger, M.D. (*Year Book Publishers, Inc., Chicago*), is up to its usual standard. The annual introductory article by the editors is outstanding on the "Principles of Topical Medication."

Psychopathia Sexualis, by Richard von Kraft-Ebing, M.D. (\$3.00. *Pioneer Publications, New York*), is the only authorized English translation of this last German edition. Victor Robinson writes an introduction and a supplement. This work is too well known and recognized to need comment or review. That there is a last edition is notice enough.

The Merck Index, Compiled and published by Merck and Company, Inc. (*Rahway, New Jersey*; \$3.00), is a well known and important work of reference. The steady progress of chemistry and its allied sciences has produced an unusual array of authentic scientific data on the physical, chemical and medicinal properties, as well as the various uses of chemicals and drugs. In the new edition of *The Merck Index*—comprising nearly twice the number of pages of the previous edition—there will be found 5,900 descriptions of individual substances; 4,500 chemical, clinico-chemical reactions, tests and reagents by the author's name; formulas for preparation of culture media, fixatives and staining solutions; use-

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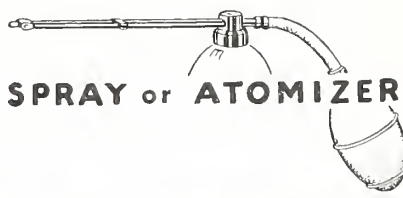
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The First Five Years of Life: The Preschool Years: From the Yale Clinic of Child Development, by Arnold Gesell, Ph.D., M.D., and staff (*Harper and Bros., New York*; \$3.50), is a running story of the development of normal children based upon this well known, competent study. It can be recommended to the parents as a clear, simple statement of what may be expected of the child during the fastest space of its development—from birth until its sixth birthday.

Chemotherapy and Serum Therapy of Pneumonia, by Frederick T. Lord, M.D., Elliott S. Robinson, M.D., and Roderick Heffron, M.D. (*The Commonwealth Fund, New York*; \$1.00), replaces the widely used *Pneumonia and Serum Therapy* by Drs. Lord and Heffron. It is the latest authoritative thing in the treatment of pneumonia and should therefore be in the hands of every practitioner.

Faiths That Healed, by Ralph Major, M.D. (*D. Appleton-Century Company, New York*; \$3.00), offers to anyone interested in the obscure and unique in medical history a thoroughly entertaining and worthwhile story of many instances down through the ages in which medicine and religion have worked in close cooperation to effect amazing cures, Aesculapius at Epidaurus, Lourdes, The Dance of St. Vitus, Swedenborg, Mesmer, Gassner, Quimby, Dowie, et. al.

The Electrocardiogram in Congenital Cardiac Disease. A Study of 109 Cases, 106 with Autopsy, by Maurice A. Schnitker, M.D., Toledo, Ohio (*Harvard University Press, Cambridge*; \$3.00), is the first work to bring together in a correlated way specific types of congenital heart lesions, the electrocardiogram and the findings at autopsy. It must, therefore, be within reach of the internist, cardiologist, and pediatrician.

Physical Diagnosis, by Elmer and Rose Walker; Revised by Harry Walker, M.D. (*C. V. Mosby Company, St. Louis*; \$8.75), is the eighth edition of this excellent text. "The more one correlates the findings of patients as shown by instrument of precision with the physical signs found on physical examination, the more independent one becomes of the more refined diagnostic measures." With such a viewpoint it is easy to see why the book is so helpful.

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Brucellosis (Undulant Fever)

WALTER M. SIMPSON, M.S., M.D., F.A.C.P.

BRUCellosis (undulant fever, Malta fever, Mediterranean fever, goat fever, contagious or infectious abortion of cattle, Bang's disease, Texas fever, Rio Grande fever, et cetera) is now known to be a common and widely distributed disease of animals and man. Our studies of this disease, begun in 1928, resulted in the discovery of 90 cases in and about Dayton during a period of 18 months. In 1930, the author expressed the belief that brucellosis would soon become recognized as a major public health problem. That this opinion was justified has been abundantly substantiated by developments of the past decade.

SYMPTOMATOLOGY

As knowledge of the clinical manifestations of brucellosis has advanced, particularly during the past decade, it has become more and more apparent that the older textbook descriptions of the symptomatology of the disease were based largely on experiences with brucellosis of goat origin. The classical clinical picture of a disease characterized by an undulatory, remittent, or intermittent fever, drenching sweats, chills, headache, backache, muscular and joint pains, weakness, loss of weight, possibly a palpable spleen, an infrequent skin eruption, leucopenia with lymphocytosis, and secondary anemia, pertains chiefly to the severe acute forms of the disease. In a high proportion of cases, the disease pursues a relatively mild, prolonged course, extending over many months or years. The early descriptions by Hughes¹ and Craig² included many such cases. Alice Evans and others have more

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recently directed particular attention to the common chronic ambulatory form of brucellosis, in which the patient, whose spirits are already depressed by continued ill health, is often given further discouragement when a diagnosis of neurasthenia is made. Many "neurasthenics", whose chief complaints were exhaustion, insomnia, irritability, and a variety of aches and pains have been found to be victims of chronic brucellosis.

Since the symptomatology of the acute and the chronic forms of brucellosis varies so greatly, these two manifestations will be considered separately.

ACUTE BRUCELLOSIS

The incubation period has been found to vary from five days to longer than one month. In accidental laboratory infections the incubation period has varied from 10 to 20 days. The prodrome is not unlike that of any general infection, with a gradual onset, although in occasional cases the disease is initiated with a sharp chill and rapid elevation of temperature

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to 103-105 F. (39.4-40.6 C.). A sense of tiredness and weakness, loss of appetite, constipation, headache and backache are common early symptoms. Usually, the patient becomes gradually aware of an afternoon or evening rise in temperature, associated with chills or chilly sensations, nocturnal perspiration and weakness. The patient often feels quite well during the morning hours, particularly in the early stages of the infection. As the temperature rises, during the afternoon or evening, the symptoms gradually return and increase in severity. The nocturnal exacerbations of fever occasionally reach great heights (106-107 F.; 41.1-41.7 C.). There is often a remarkable disparity between the subjective sense of fever and the height of the fever as registered by the clinical thermometer; in many instances the patient does not complain of fever, nor does he present a febrile appearance, but the physician finds, to his surprise, a fever of 101-103 F. (38.3-39.4 C.). As the fever abates, chills and sweating occur. If defervescence is rapid, the perspiration is more likely to be of a drenching character. In such cases, the sweats, which literally saturate the night clothing and bedding, are one of the most impressive features of the disease. The perspiration often has a peculiar sweetish, fetid odor. The chills may be severe enough to be regarded as true rigors in about one-third of the acute cases.^{3,4,5,6} Many patients experience only mild chilly sensations, while in about one-fourth of cases chilliness is absent.

Arthralgia and muscular pains are prominent features of the acute form of the disease in approximately one-half of the cases. The joint pains may be more pronounced during the onset or they may persist throughout the course of illness. The myalgia may be accompanied by a feeling of "stiffness" not unlike the muscular soreness which follows vigorous exercise. Hydrarthrosis and transient periarticular swelling have been observed occasionally. Permanent impairment of the joints usually does not occur. Suppurative osteomyelitis as a complication of brucellosis has been described with increasing frequency during the past few years.^{7,8,9,10,11,12,13,14,15}

LOCALIZATION IN THE BRAIN

Marked restlessness and insomnia usually accompany the nocturnal febrile exacerbations. Delirium occurs in some cases in which the fever reaches great heights. Regional *Brucella* localizations in the brain, spinal cord or meninges may occur during the acute phase of the disease and produce symptoms and signs of encephalitis, myelitis, or meningitis; such complications are, however, more commonly observed as delayed manifestations of brucellosis. The symptomatology varies greatly, depending upon the extent of meningeal invasion and the presence of additional complications involving the brain, spinal

cord or peripheral nerves. In a patient with brucellosis, the development of such symptoms and signs as severe headache, vertigo, diplopia, nuchal rigidity, aphasia, psychic disturbances and various forms of paralysis which are often evanescent, calls for examination of the cerebrospinal fluid.

REMISSIONS

The matutinal remissions or intermissions and the nocturnal exacerbations of fever may last from one week to many months. The inadequate name "undulant fever" refers to recurring relapses of fever following afebrile intermissions. Such febrile relapses are the exception rather than the rule; most patients experience but one febrile period, lasting from a few days to several months, and finally reaching the normal level by lysis.

The essential gastro-intestinal complaints are anorexia and constipation. The degree of constipation appears often to parallel the severity of the infection. Diarrhea is of rare occurrence. Nausea and vomiting may occur in the more severe cases. Abdominal pain is a not infrequent feature of the disease during its early manifestations. Among 125 cases studied by Hardy, abdominal pain occurred in forty; in ten it was the major complaint. Simpson found abdominal pain to be the chief complaint in sixteen of 142 patients with brucellosis. The occurrence of abdominal pain has often led to appendectomy in patients with unsuspected brucellosis, the correct diagnosis having been made only after the persistence of febrile symptoms stimulated a further search for the cause. As in typhoid fever, the gallbladder may become a focus of *Brucella* infection. *Brucella* has been recovered from the excised gallbladder and from the bile following duodenal drainage in patients with symptoms of cholecystitis.^{16,17,18}

Symptoms referable to the respiratory tract may be an outstanding feature of the disease in certain instances. Cough, associated with mucoid or mucopurulent sputum production, is not infrequent during the first few weeks of illness, and may persist for months. Recent reports^{19,20,21,22,23} provide convincing evidence that pulmonary lesions of brucellosis are of frequent occurrence and are often detectable by roentgenographic examination, even in the absence of distinctive physical signs of pneumonia.

The most serious cardiovascular complication has been the occasional occurrence of vegetative endocarditis. Smith and Curtis²⁴ found reports of nine cases of *Brucella* endocarditis confirmed by postmortem examination, to which they added a similar case. In most instances the vegetations occurred on mitral or aortic valves previously damaged by rheumatic fever.

The name commonly applied to brucellosis of

cattle, "infectious abortion", is derived from the well known predilection of the causative organism for the genital tract. There is strong evidence that the same regional localization sometimes occurs in human beings. Painful swelling of the testes has been described frequently. Acute epididymitis, orchitis, prostatitis and seminal vesiculitis may be early manifestations of the disease. Simpson⁴ recovered *Brucella abortus* from a draining sinus tract which extended from the globus major of the epididymis through the scrotal wall.

There appears to be little doubt that brucellosis is at least an occasional cause of abortion in women who live on farms where they have direct contact with infected animals, or in women who consume raw milk or unpasteurized dairy products. Carpenter and Boak²⁵ recovered *Brucella abortus* from the tissues of a human fetus which was aborted at the end of the fourth month of gestation. Kristensen²⁶ isolated the abortus variety of the organism from the exudate which covered the uterine site of the placenta of a seven-month fetus. Frei²⁷ isolated *Brucella* from the vaginal discharge of a woman who had aborted 10 days previously.

Loss of weight is an almost constant feature of the acute form of the disease. The greatest loss, often from 10 to 50 pounds, occurs in those patients who experience high fever, drenching sweats and great prostration.

A transient cutaneous eruption, usually papular, macular or maculopapular, is a relatively infrequent finding. The skin lesions may simulate the roseola of typhoid fever.

CHRONIC BRUCELLOSIS

Many physicians feel that the symptoms and signs of acute brucellosis are often sufficiently characteristic to justify such a provisional diagnosis on the basis of clinical findings. In dealing with chronic brucellosis, however, the physician is often faced with a problem which will tax his diagnostic acumen to the utmost. No disease, not excepting syphilis and tuberculosis, is more protean in its manifestations.

Quite naturally, a certain amount of wholesome skepticism has arisen in the minds of some physicians regarding any wide prevalence of chronic brucellosis. Such a feeling of doubt is quite defensible, since one is justified in questioning the validity of some of the diagnostic tests upon which such a diagnosis is often based.

A recitation of all of the symptoms which have been ascribed to chronic brucellosis would serve only to heighten the confusion which as yet surrounds this baffling phase of the disease. In general, it may be stated that the three cardinal features of most cases of chronic brucellosis are weakness, low-grade fever and a lack of objective physical findings. McGinty and Gam-

brell²⁸ have listed over 150 different manifestations of chronic brucellosis. All students of chronic brucellosis have emphasized the almost universal prominence of symptoms which relate to the central nervous system. In addition to the occasional acute invasion of the meninges, brain and spinal cord by *Brucella*, there is evidence²⁹ that the endo-antigen of *Brucella* organism circulating in the blood has a toxic action upon the central nervous system. These observations led Evans³⁰ to state: "These facts challenge the right of a physician to make a diagnosis of neurasthenia—a diagnosis regarded as dishonorable by the patient, and also by his family, his employer and his friends—without considering, among other possibilities, the possibility of chronic brucellosis".

DIAGNOSIS

Since it is exceedingly hazardous to base a diagnosis of brucellosis solely on clinical grounds, recourse must be had to laboratory diagnostic tests. These procedures include (a) primary isolation of the causal organism by cultural methods from blood, spinal fluid, secretions, excretions, or excised tissues; (b) indirect recovery of *Brucella* by culture after animal inoculation; (c) the agglutination test; (d) the intradermal test; and (e) the opsonocytaphagic reaction.

The only method by which the diagnosis of brucellosis may be completely established is by the *cultivation and identification of the organism*. While cultural technics have improved greatly during the past few years, with a corresponding increase in the number of reported instances of recovery of the organism, the undertaking is often beset with difficulties and requires skill and, above all, patience.

The most commonly used and the most reliable indicator of *Brucella* infection, in the absence of positive cultures, is the *agglutination test*. This is particularly true in cases of acute brucellosis, in which a high serum agglutinin titer will be found in a great majority of cases. Agglutinins may appear as early as the fifth day of illness, but ordinarily are not found until the second week after the onset. In some instances, specific agglutinins may not appear for several weeks. One important source of difficulty in interpreting the results of agglutination tests is the fact that agglutinins may be persistently absent (in about 6 per cent of patients) or may be present in low titer in persons from whom *Brucella* has been cultivated. Another source of error in interpreting the agglutination reaction is the fact that the titer may remain at a high level for months or years after recovery. Then, too, some individuals exposed to the infection may develop agglutinins without notable illness. Furthermore, the level of the agglutinin titer may fluctuate widely on repeated

testing. *These considerations call for the exercise of keen judgment in interpreting the results of the agglutination test. A person suffering from some disease other than brucellosis may have a positive agglutination test merely as the result of a previous symptomatic or asymptomatic Brucella infection.*

In the past, diagnostic significance has usually been attributed to titers of 1:80 or above. The choice of such an arbitrary diagnostic titer is not justified in the light of recent studies. In those cases in which the clinical manifestations suggest brucellosis, the absence of agglutinins or their presence in titers of 1:10 to 1:40 should stimulate further bacteriologic and serologic studies.

While the agglutination test is undoubtedly of great value, its limitations must be recognized. Otherwise, errors will be made in two directions: first, the correct diagnosis of brucellosis may not be made because too much reliance is placed in a negative test; or second, an incorrect diagnosis of brucellosis may be made in a person who has a residual agglutinin titer from a previous invasion by Brucella, but who is suffering from some other disease when the test is made.

The intradermal test is used to determine cutaneous hypersensitiveness to specific Brucella antigen. A positive allergic skin reaction is generally accepted as evidence of past or present Brucella infection. While the great majority of patients from whose blood Brucella has been recovered show a positive skin test, the test has yielded negative results in rare instances in which Brucella infection was proved by culture.

CHIEF SOURCES OF ERROR

The chief sources of error in interpreting the significance of a positive skin test lie in the fact that the test is frequently positive in exposed individuals with no history of an illness compatible with brucellosis. Furthermore, the hypersensitiveness, once acquired after symptomatic or subclinical infection, usually persists for many years. *Therefore, it must be emphasized that a positive skin test does not mean that the symptoms from which the patient is suffering at the time of a positive skin test are necessarily due to brucellosis.* Students of this disease are only too familiar with instances in which a diagnosis of brucellosis was made only on the basis of a positive skin test and in which further developments revealed the presence of some such disease as active tuberculosis, Hodgkins' disease, leukemia, typhoid fever, malaria, or subacute streptococcic endocarditis. Gould and Huddleson³¹ regard the skin test as the most sensitive diagnostic test for brucellosis; these investigators express the belief that if the skin test is negative, brucellosis may usually be ruled out.

There is evidence^{32,33} that the injection of heat-

killed Brucella for the intradermal test stimulates the production of agglutinins. Evans³⁴ found that the intracutaneous injection of brucellergin in 12 volunteers caused the development of opsonins in seven and agglutinins in five; in one instance the agglutinins rose from zero to a titer of 1:320. *Hence it is advisable to collect blood specimens for serologic tests before the intradermal test is performed.*

INADEQUACIES OF TESTS

The inadequacies of the agglutination test and the intradermal test, particularly in distinguishing between present and past Brucella infection, led Huddleson, Johnson and Hamann³⁵ to reintroduce the *opsonocytophagic reaction*, a modification of the Leishman-Veitch technic for determining the phagocytic activity of the blood in the presence of serum opsonins and homologous leucocytes. The opsonocytophagic test is employed in conjunction with the intradermal test or the agglutination test, or both, to determine the immunity status of an individual giving positive tests by either or both methods.

While theoretical considerations lend support to the contentions of Huddleson and his associates as to the value of the opsonocytophagic test, it still lacks confirmation. The studies by Calder,³⁶ and Keller, Pharris and Gaub^{37,38} appear to provide some support to Huddleson's thesis. On the other hand, Evans³⁹ regards the opsonocytophagic test as the least reliable of the diagnostic tests in cases of chronic brucellosis; she found strongly positive (immune) reactions in four cases from which Brucella was cultivated and weak or moderate reactions in recovered cases. Morales-Otero and Gonzales⁴⁰ tested over 200 individuals (cattle handlers, milkers and laboratory workers exposed to Brucella infection) with a purified Brucella skin-test antigen, agglutination tests, complement fixation tests and opsonocytophagic tests. They found no correlation between cutaneous allergy to Brucella and the opsonocytophagic reaction. Fifteen cases that were positive to the opsonocytophagic reaction gave a negative cutaneous reaction, while 18 showing a positive cutaneous reaction were completely negative to the opsonocytophagic reaction. Lee Foshay^{41,42} and the writer, working independently, have found that a significant proportion of patients yield aberrant and unexpected results in relation to their immunity status when the opsonocytophagic test is employed in conjunction with cultural methods, agglutination tests and skin tests. High phagocytic titers (immune reactions) occur in some patients with severe and uninterrupted brucellosis, proved by cultures. Certain recovered patients, asymptomatic for months or years, exhibit marked fluctuations from month to month, running the entire gamut from high to low phagocytosis, or sometimes none at all. *Until more extensive studies have been made on cul-*

turally proved cases of brucellosis the results of the opsonocytophagic test should be interpreted with caution and with reservations.

TREATMENT

The most important consideration in the control of brucellosis is *prophylaxis*. The widespread distribution of the infection among cattle renders it difficult to control the infection at its source. Many cows have Bang's disease and eliminate the organisms in large numbers in the milk and vaginal discharges without manifesting symptoms of the disease (abortion, mastitis, sterility and lessened milk yield).

There is but one logical method for preventing the transmission of milk-borne infection to human beings, and that is by pasteurization. Brucellosis is only one of the formidable list of diseases transmitted to man through the use of raw milk and other unpasteurized dairy products. Murray, McNutt and Purwin,⁴³ Boak and Carpenter,⁴⁴ and Zwick and Wedeman⁴⁵ have demonstrated that complete pasteurization (143-145 F.) (61.6-62.7 C.) for 30 minutes will destroy *Brucella*. *The need for strict supervision of the pasteurization process is apparent.* For the protection of the health of those persons whose occupations bring them in direct contact with infected animal tissues we must rely upon education and the institution of precautionary measures.

For those persons who live on farms, or in small communities where pasteurization is not yet practiced, home pasteurization may be carried out by placing the milk in an aluminum vessel and heating it to 155 F. (68.3 C.), stirring constantly, then immediately setting the vessel in cold water and continuing the stirring until cool.

SPECIFIC THERAPY

While there is considerable evidence that the employment of various types of serum therapy and vaccine therapy has greatly improved the outlook for most patients suffering from acute or chronic brucellosis, it is extremely difficult to evaluate the effectiveness of any form of specific therapy in a disease characterized by natural remissions and by an extremely variable symptomatology. The reported results of vaccine therapy or serum therapy run the entire gamut from pessimism to hyperenthusiasm. More extensive controlled and systematic studies on a large number of patients, carried out over a period of many years, are necessary before definite statements can be made. It would appear, however, that sufficient data have been accumulated to justify the continued and extended use of some of the specific agents.

A. SERUM THERAPY

Interest in serum therapy, which had waned following the earlier appearance of several un-

favorable reports, has been revived by the development of a more potent anti-*Brucella* serum by Foshay^{46,47} and his associates at the University of Cincinnati. Detoxified *Brucella* antigens are employed for the development of the antisera in goats or horses. Several favorable experiences with the Foshay serum have been recorded by other workers.^{48,49,50,51,52} This type of antiserum therapy should be restricted to patients with acute or subacute brucellosis, preferably to those who have had the disease less than eight months.

B. VACCINE THERAPY

It seems probable that the earlier discrepant reports of the effectiveness of vaccine therapy had their basis in a lack of standardized methods for the preparation of the vaccines, both as regards the choice of suitable strains and the concentration of the vaccine. These difficulties appear to have been largely overcome in recent years by the development of better standards for the preparation of therapeutic vaccines.

Brucella melitensis (varieties *abortus* and *suis*) vaccine, N.N.R., has been widely employed and is available through the usual trade sources. This vaccine is a saline suspension of heat-killed or formalin-killed *Brucella abortus* and *suis* organisms in equal quantities. Vaccines prepared from the *melitensis* variety of the organism should be utilized only in the treatment of the relatively rare *Brucella melitensis* infections.

Experience has taught that no rigidly standardized scheme of dosage of vaccine is applicable to patients with brucellosis. Experience and good judgment are essential requisites in determining the proper dosage for each individual. The usual procedure with the commercially available vaccine is first to test for hypersensitiveness by injecting 0.05 cc. of a 1:10 dilution of the vaccine intracutaneously. If the patient does not experience an excessive local or systemic reaction within the next 48 hours, an initial therapeutic dose of 0.25 cc. is injected into the deep subcutaneous tissues, or preferably into the muscle. Local reactions are minimized by intramuscular injections. If no untoward reaction follows the first injection of 0.25 cc., a second dose of 0.25 cc. is given three days later. The dosage is then increased in increments of 0.25 cc., at intervals of three days, until a dosage of 1 cc. is reached. Ordinarily, two injections of 0.5 cc. and two of 0.75 cc. are given before the 1 cc. dosage is attained. Five to eight injections of 1 cc. each may then be given at three-day intervals.

If the patient is highly sensitized, it is wise to begin with intramuscular doses of 0.1 cc., or, in rare instances of extreme sensitization, with doses of 0.1 cc. of a 1:10 to 1:100 dilution of the vaccine, and gradually increase the dosage by 0.1 cc. increments until a dosage of 1 cc. is

reached. If, during the course of vaccine injections an unusually severe local or systemic reaction should occur it is desirable to reduce the next dose to one-half the amount which produced the severe reaction and then cautiously and gradually increase the succeeding doses.

A series of four to six or more sharp systemic, febrile reactions, usually accompanied by a transient exacerbation of symptoms, is the goal of the treatment. Hence, only extreme local or general reactions should be avoided. Elevations of temperature to 103-105 F. (39.4-40.6 C.) are not uncommon within four to eight hours after the injection of vaccine. Such systemic responses may occur following the first injection of a small quantity of vaccine or may not occur until relatively large doses are given. In chronic brucellosis larger doses of the vaccine may be required; if no reaction is provoked after five or six 1 cc. injections, the dosage may be gradually increased by 0.5 cc. increments to 2 or 3 cc.

While some patients who have obtained an apparently satisfactory response to vaccine therapy have had little or no thermal reaction, the most prompt and lasting results have occurred in those who have experienced several such reactions.

Erythema and tenderness at the site of vaccination occur commonly for a day or two following injections. In about 5 per cent of cases, a local hard tumefaction may persist for much longer periods. In a small proportion of such cases sterile abscesses or local areas of necrosis have developed.

C. BRUCCELLIN THERAPY

Brucellin is a fraction of *Brucella* cells obtained by growing the organism in liver broth. The bacteria-free active agent is recovered from the liver broth filtrate. This preparation was devised by I. F. Huddleson^{53,54,55} and may be procured at the Central *Brucella* Station, Michigan State College, East Lansing, Michigan.

The dosage of Brucellin must also be adjusted to suit the requirements of individual patients. After the extent of sensitiveness has been determined by the intradermal injection of 0.1 cc. of Brucellin, the usual procedure in non-hypersensitive patients is to give repeated injections of 1 cc. at intervals of three days until the morning and evening temperatures between the intervals of injection tend to become subnormal. Here again, one object of this form of therapy is the production of a series of four or more febrile, systemic reactions.

A partially oxidized detoxified vaccine, devised by Foshay and O'Neil⁵⁶ has been used with apparent success.⁵⁶ Much smaller doses are given subcutaneously at more frequent intervals. The few reports of results indicate the recovery rate equals that of other vaccines or Brucellin. Local

or constitutional reactions do not occur with the oxidized vaccine. It has been recommended chiefly for the treatment of chronic brucellosis.

While it is difficult to evaluate the results of vaccine or Brucellin therapy, the experiences of many investigators indicate that about 60 per cent of patients with brucellosis obtain apparently complete recovery after a satisfactory course of either agent. An additional 25 per cent appear to obtain some benefit, while the remaining 15 per cent are not improved.

The contraindications to vaccine or Brucellin therapy are heart disease, renal disease, arteriosclerosis, meningeal or cerebral localizations of *Brucella* or the acute fulminating (malignant) form of the disease.

NON-SPECIFIC PROTEIN THERAPY

Injections of foreign protein substances, such as sterile skimmed milk, typhoid vaccine or typhoid-paratyphoid vaccine have been utilized^{57,58,59} for the production of non-specific shock reactions in the treatment of brucellosis. Erwin and Hunt^{60,61} reported good results in 20 patients with acute and subacute brucellosis following the intravenous injection of killed typhoid-paratyphoid organisms. The usual initial dose was 30 to 50 million killed organisms, with two to six additional injections, increasing the dosage by increments of 25 million organisms.

CHEMOTHERAPY

Neoarsphenamine, mercurochrome, acriflavine, metaphen, thionin, methylene blue, methyl violet, gentian violet and other chemical substances have been used in the treatment of brucellosis. In most instances the reports of the apparently successful use of these substances were based upon observations limited to small numbers of patients. The very length of the list argues against the specificity of any of them.

Sulfanilamide and related compounds have been heralded⁶² as effective agents in the treatment of brucellosis since 1936. After the first wave of enthusiasm, usually based on short observations on relatively few patients, other reports of less favorable or entirely negative results have appeared. Blumgart and Gilligan⁶³ analyzed the results reported in the 31 papers which appeared between 1936 and 1939. Twenty-four of the reports were concerned with only one or two patients. Of the 74 cases treated with sulfanilamide or allied compounds, there were 68 apparent recoveries and six failures; 14 of the 68 patients (20 per cent) exhibited relapse after apparent recovery. The daily dosage of sulfanilamide employed in most cases was 4 to 6 gm. (60 to 90 grains) during the period of fever, with gradually diminishing dosages for three or four days after the fever abated. The administration of the drug was rarely continued for more

than 12 days. Bynum⁶⁴ reported six cases of brucellosis unsuccessfully treated with large doses of sulfanilamide. Long and Bliss⁶⁵ report recurrence of infection in four of five patients whose immediate response to sulfanilamide therapy was apparently quite satisfactory; in two instances *Brucella* was recovered from the blood after sulfanilamide therapy was discontinued. The writer has had similarly disappointing experiences in several cases treated with large doses of sulfanilamide, controlled by determinations of the sulfanilamide concentration of the blood. *Until more extensive and extended studies are made on culturally proved cases, the value of sulfanilamide therapy in cases of brucellosis must be regarded as undetermined.* In this connection it might be well to recall the fact that a temporary remission is not synonymous with cure.

ARTIFICIAL FEVER THERAPY

The observation that recovery from brucellosis often followed the induction of fever by chemical or biological agents led Prickman and Popp⁶⁶ to investigate the possible usefulness of artificial fever induced by physical means in the management of brucellosis. Each of three patients was given three artificial fever treatments, each of five hours' duration, at a rectal temperature of 105-106 F. (40.6-41.1 C.); all were benefited by the treatment. Zeiter⁶⁷ described a similarly favorable experience. More recently, Prickman, Bennett and Krusen⁶⁸ analyzed the results of treatment with physically induced hyperpyrexia in 21 cases of brucellosis; apparent cure resulted in 80.9 per cent of the patients. The duration of the disease prior to artificial fever therapy varied from ten days to two and one-half years. The authors expressed the belief that fever therapy was most efficacious in the acute and subacute febrile stages of the disease. Simpson,⁶⁹ who has had similarly favorable results, reserves artificial fever therapy for those refractory patients who do not respond to vaccine therapy. Artificial fever therapy should be carried out only in properly equipped institutions by thoroughly qualified physicians and nurse-technicians.

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Interpretation of Laboratory Reports of Syphilis

The standard serologic tests used in the study of syphilis indicate the presence or absence of reagin at levels where it commonly occurs in known syphilis.

In evaluation studies of known syphilitic and negative sera, the standard tests approach but do not consistently attain absolute specificity. A fringe of 1 per cent false positive tests may be expected.

The serologic reports constitute presumptive rather than determinative evidence for or against the existence of syphilis in a given individual.

The serologic tests in themselves afford no evidence as to the activity or infectivity of the disease in a given individual.

The interpretation of serologic tests in the study of syphilis cannot be made apart from the history and clinical findings of the patient.—M. E. Barnes, M.D., Iowa City; Jr. of the Iowa State Med. Soc., Vol. XXX, No. 9, September, 1940.

Role of Intubation in the Treatment of Intestinal Obstruction

W. OSLER ABBOTT, M.D.

INTESTINAL intubation has now been employed as an adjunct to the more orthodox methods of treatment for bowel obstruction in enough cases, by a sufficient number of physicians and over a long enough time to allow a critical appraisal of its value. It has its advocates and its opponents. To arrive at an estimate of its worth we may consider what it is, what it is intended to accomplish, the objections to its use and the arguments in its favor.

WHAT INTESTINAL INTUBATION IS

The procedure, as adapted for the management of cases with obstruction, consists of the passage of a tube down the intestine to the area of the causative lesion or, if it is a paralytic ileus, to a point sufficiently far to give relief from distention. Through this tube the intestinal contents are aspirated by constant suction. To cause the tube to advance in this fashion a thin walled rubber balloon must be attached to its tip and a separate lumen of the tube or a separate tube must be available for the inflation of the balloon (Fig. 1). Thus the measure differs from the gastro-duodenal suction of Wangensteen and Paine¹ in that the tube advances as far down the intestine as is necessary to reach the lesion, if there be one. The original technique was described by Miller and Abbott² in 1934. Its first use in the management of intestinal obstruction was reported by Abbott and Johnston³ in 1938.

THE PURPOSE OF INTUBATION

The purposes of this procedure are several. At the outset it is to decompress the distended intestine and thereby to relieve colic and vomiting. It also, by the decompression, brings about a return of peristalsis. Meanwhile, by noting the volume of the fluid drainage, one may determine not only the amount of fluid lost but also, because the salt concentration in the aspirated fluid is constant at about 0.6 gm./100 cc., the salt loss. The nature of the obstruction may often be determined by the injection under the fluoroscope, and subsequent withdrawal if need be, of an opaque mixture of barium sulphate.

Read before the First General Session, Ohio State Medical Association, Ninety-Fourth Annual Meeting, Cincinnati, May 14-16, 1940.

From the Gastro-Intestinal Section (Kinsey-Thomas Foundation) of the Medical Clinic, Hospital of the University of Pennsylvania.

The Author

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Surgical procedures, should operation prove necessary, are facilitated by a lack of intestinal distention; and the risk of post-operative leakage at any required anastomosis is reduced. As it is possible to feed the patient by mouth and draw off the intestinal residue for almost an indefinite period, it makes the time of operation in many cases largely elective. Under these circumstances the patient is subjected to surgery when he is best, rather than least, prepared to undergo it.

OBJECTIONS RAISED TO ITS USE

Opposition to this procedure as a part of the treatment of acute intestinal obstruction has frequently been raised, most commonly perhaps, on the ground of the delay in surgery which it necessitates. So deeply entrenched is the old aphorism of Sir Arbuthnot Lane that one should never let the sun rise or the sun set on a case of intestinal obstruction without having first operated that the prospect of hours or even of days intervening between admission and operation seems to many an unwarranted risk. In this matter, however, there has been some misunderstanding of our viewpoint: Some patients demand immediate operation; in others, operation can safely be delayed long enough to try intubation. At any time during the course of the intubation operation may become necessary, but if so the patient has the chance of being better prepared for it; in some instances it may be avoided. Under any circumstances the introduction of the tube into the stomach, if even only for its evacuation, is justified. Most often, save in frank strangulations or in an obvious condition such as a

palpably irreducible hernia that requires no intubation a wait of an hour or two is permissible. If at the end of that time the patient is improved one may wait again. Improvement must be both subjective and objective. Tenderness, pain, colic and vomiting must be diminishing, distension must be decreasing and even though hours may pass without the tip of the tube leaving the stomach, a steady improvement may take place from the withdrawal of small gut contents as it intermittently gushes back into the empty stomach. Thus the answer to the question how long should one wait before op-

simple. For a surgeon in a small hospital who must do everything himself the time required of him in the course of the intubation of a critically ill patient may leave him little opportunity to do anything else for some hours. I have frequently found that a surgeon has expected me to be able instantly to pass the tube into the small intestine. This sometimes can be done but far oftener one places the tube at the pylorus and waits. Wangensteen⁴ and Johnston⁵, for example, have stressed the value of suction from the stomach alone. While this rarely completes the decompression, and accomplishes improvement more slowly than would be the case were the tip farther downstream, the important point is that it does produce improvement.

Another objection to intubation as a treatment has been the difficulty often experienced in passing the tube. Before air can be injected into the balloon and the tip allowed to advance it must have passed the gastro-intestinal "water shed", that point in the descending limb of the duodenum that determines the direction of motility. Irritate the gut upstream from this area and regurgitation ensues. Irritate its downstream and a tendency toward aboral movement of contents follows.

As an indication of the way in which an average case is handled we may consider P. R., a man in the fifth decade, who was rapidly losing ground from a malignancy of the colon which had involved the ileum with obstruction resulting. He was intubated to relieve his vomiting and to determine where in the ileum the lesion lay in the hope that paliative surgery might relieve him. At the time a gastro-intestinal consultation was asked for he was distended, and vomiting everything he ate. The vomitus was brown and grumous but not frankly fecal. A cotton applicator dipped in 2 per cent pontocaine was inserted in the larger nasal passage till it touched the nasopharynx and left in place. The balloon on the tube was then tested under water for leaks, lubricated with a water soluble jelly and on withdrawing the applicator the tip of the tube was inserted into the anesthetized passage.

Once the ballon was in the esophagus the tube was thereafter lubricated with nupercaine ointment. When the 60 cm. mark (two rings) on the tube was at the nose 20 cc. of air was placed in the balloon, the tube was drawn back till the balloon lodged in the cardia and then the balloon was emptied. This placed the tip just within the stomach. To advance the tube under such circumstances would only result in its coiling in the fundus because of the change in shape which the obstructed stomach undergoes (Fig. 2 b and c). This hypertonicity of the antrum makes it almost more difficult to advance the tip from the fundus to the antrum than from the antrum to the duodenum. To overcome this the patient was turned face downward on his bed and in spite of his distention 300 cc. of air were injected into the stomach (Fig. 2-d). This expands the fundus but also to some extent the antrum, and the tip now will

CHOICE OF TUBE IN 78 CASES

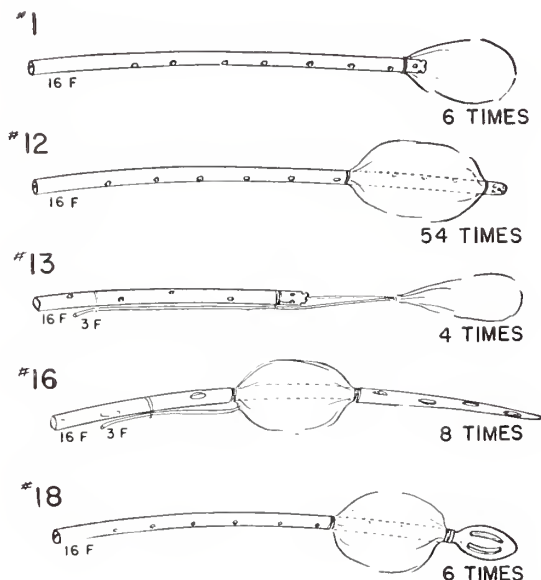


Fig. 1. Small Intestinal Tubes: Various arrangements have been used under different circumstances for small intestinal intubation. Each is comprised of a balloon, a small tube or small lumen for its inflation and a larger tube or larger lumen for aspiration of intestinal contents or for the injection of material.

erating is that one should wait only so long as the patient continues to improve clinically. This has relatively little to do with whether or not the tip has left the stomach. Often it will be 6 to 12 hours before the tube enters the jejunum and begins the more rapid and complete decompression that occurs as it descends. Occasionally it will be 12 to 24 hours or even longer, but the significant factor is not the time but the patient's condition. Frequently the tube descends to the point of obstruction, decompresses the gut and presently all evidence of obstruction disappears rendering any operation unnecessary. It is apparent from all this that though intubation may be better for the patient it is tedious for the doctor. In a hospital provided with an experienced resident staff and nurses trained to this particular technique it is

advance toward the pylorus if more tube is passed into the nose.

When 80 cm. of tube had been passed it was moored to the nose with adhesive tape and Wangenstein bottles immediately applied (Fig. 3). Some air at once returned. He was then slowly rolled on his right side with his left side up and so over, little by little, till he lay on his back. During the course of this procedure the air shifted by gravity from the fundus to the anterior part of the body of the stomach and reached the pylorus in small amounts that were at once recovered. By the time he lay flat on his back the antrum was again firmly contracted, and the last of the air in the stomach was recovered by rolling him with his left side down. (Fig. 2-e). This shifted the last of the air within reach of the tube. By this procedure such a volume of air may be injected with very little danger of its passing into the intestine and increasing the distention. When the last of the air was out of the stomach again the patient was returned to his right side and left for three hours in this position. (Fig. 2-f). He was then fluoroscoped, the tip was in the descending duodenum and upon the inflation of the balloon it advanced normally along the gut, reaching the lower ileum in six hours. During this period, as I have pointed out elsewhere⁶, a nurse with an understanding of the method is invaluable.

The advantage of proceeding in this fashion rather than attempting to manipulate the tube into the duodenum under the fluoroscope at once is the opportunity it affords for correcting the fluid electrolyte and protein imbalance that so often exists. The technique of intubation used on P.R. took ten minutes from the introduction of the tube into his nose to the propping of him on his right side for the three hour wait. During this time a blood transfusion can be given and additional 5 per cent glucose in saline. The total blood volume is often so low due to dehydration that though the amount of protein circulating in the plasma is greatly reduced the fact is obscured by the normal concentration reported from the laboratory. The use of a transfusion instead of merely salt and water is to enable the patient to hold the water and a due proportion of the salt within his vessels. Otherwise the saline would first raise the blood volume, diluting the plasma proteins to a point beyond which an effective plasma osmotic pressure could not be maintained, and then pass out into the tissues spaces as edema fluid. Since the classic work of Hartwell and Haguet⁷ and of Haden and Orr⁸ the importance of the fluid and salt has been clear. Of late the work of Ravdin and his associates⁹ in particular has stressed the importance of protein. The time when these adjustments should be made, practically speaking, is between the introduction of the tip of the tube into the pylorus and the subsequent examination to see whether it has entered the duodenum.

A third objection is that once intubated it is not always possible to aspirate the gut contents

through a twelve foot tube. There are many small points contributing to this opinion. One of the commonest is the inadequate suction apparatus frequently employed. No device applying less than a five foot hydrostatic suction is able to draw over gastric mucus or the more grumous intestinal contents. Most of the pressure is expended upon overcoming friction and the suction applied by the distal end of the tube to the gut is of course far less than this. Often one finds an inexperienced interne using only two bottles to maintain suction (Fig. 3) under the impression that if the tube from the intestine leads to the upper bottle and its contents in turn drops through a five foot tube to a lower bottle he must be applying suction equal

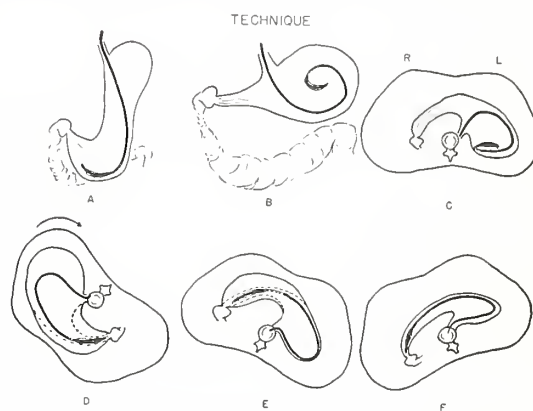


Fig. 2. Intubation Technique: (A) The usual course of a tube in the stomach of a healthy subject. (B) The change in shape of the stomach and resultant course of the tube in an obstructed patient. (C) A cross section at the xyphoid level showing the coiling of the tube in the fundus. (D) The proper position of the patient during the injection of 300 cc. of air into the stomach. The tube now drops to the pylorus but aspiration of the air allows the stomach to contract about the tube (dotted lines) and cut off the suction. (E) This shows the direction in which to roll the patient to cause the air in the fundus to shift into a position from which it can be aspirated. Never rotate the patient in the opposite direction or the tip will drop out of the pylorus. (F) The position in which the patient should rest after the stomach has been emptied.

to the five foot water column. While this is true if gas is coming from the gut, it is not true if fluid is being recovered, for then the fluid column rising from the patient to the upper bottle cancels out that much of the fluid column falling from the upper to the lower bottle. The third bottle in the system tied to the patient's bed solves the problem.

Another reason for occasional failure to obtain decompression is obstruction of the tube. This probably occurs in tubes of round cross section more often than in the double lumened tube with its half round cross section. As pointed out by Abbott and Rawson¹⁰ the flat side of the aspirating lumen of a double lumened tube sags inward on suction and bulges outward on pressure thus facilitating the dislodgement of occluding particles. This is particularly important when intubating for the relief of colon obstruc-

tions and in either case irrigation of the tube by the injection of 20 cc. of saline every two hours is a wise precaution.

More significant as a cause of faulty decompression is the condition found in left sided colon obstructions in particular. Here, the purpose of

the irrigating fluid should be changed to 1.5 per cent sodium sulphate solution to minimize absorption of fluid and to prevent inspersion of the colon contents.

In the occasional case, however, it is the state of the feces itself that defeats decompression. P.P., a retired baker in his seventh decade, had his last bowel movement on August 1. On September 15 he began to suspect that something was wrong and saw his doctor. He was intubated and when the tube failed to come within less than a foot of the cecum a cecostomy was done. This too failed to empty the colon and contracting an intercurrent infection he died. At autopsy his colon content was the consistency of carpenter's putty and extended as a malleable mass a foot up the terminal ileum. On introducing an aspirating tube into a jar of this feces no available suction could draw it through the lumen.

A final cause for incomplete decompression is the occurrence of multiple obstruction. This is not infrequent and is to be looked for whenever a patient continues to be nauseated or to have pain in the presence of a technically satisfactory intubation. The tip will come to a stop ultimately but a film will show a gas distended loop still present. The problem here as always is whether to operate or wait and the nature of the case is often the determining factor. If it is a patient with old adhesions from an earlier operation and if the pain and tenderness is severe and the caliber of the undecompressed loop large it is often better to operate. When the same occurs soon after abdominal trauma or peritoneal infection it is better to wait if possible. The condition often results under these circumstances from inflammatory adhesions that will absorb in a week or two if left alone.

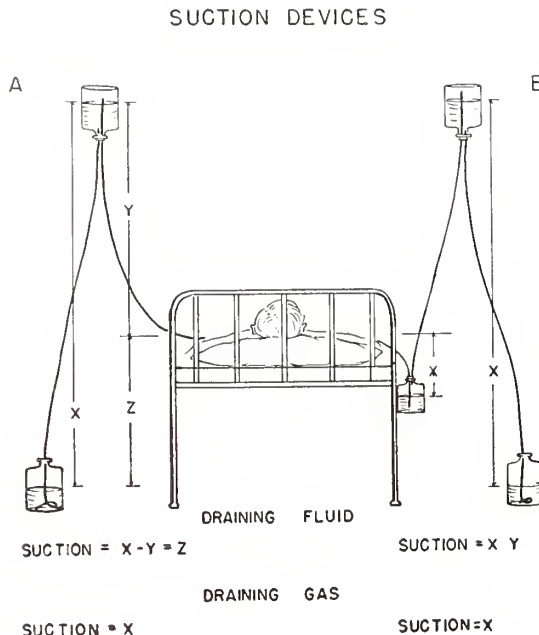


Fig. 3. Aspirating Bottles Used for Withdrawing Small Intestinal Contents: (A) The two bottle arrangement is satisfactory for the aspiration of gas but if fluid fills the tube leading to the upper bottle its weight cancels out the suction of an equal length of the tube through which water flows down to the lower bottle. (B) The three bottle system gives similar results when gas is being withdrawn but allows the development of higher pressures while fluid is flowing. This results because the ascending tube always contains air, the descending tube from the upper bottle always contains water.

intubation as pointed out by Ravdin and Abbott¹¹ is to decompress the colon and by cleaning it out to obviate the necessity for a preliminary cecostomy. As Wangenstein¹ has stressed, however, the gas is apt to be limited to the colon. The same hypertonicity of the terminal ileum that holds the gas down holds the tube up. The nearer it comes to the cecum the more slowly does the balloon move. Under these circumstances one must be particularly on guard against intubating too long in the hope of entering the cecum only to be driven at length to a cecostomy when the cecal wall may already have been badly stretched. The technique of irrigation should be changed here, also. If the lower ileum is empty and contracted the irrigating fluid injected runs on in advance of the tip and cannot be recovered. Thus irrigating at this stage of the game should be with tap water instead of saline to facilitate absorption if the fluid runs on into the cecum adding to the distention. Once the tube enters the cecum

ARGUMENTS IN FAVOR OF INTUBATION

In contrast to these points that have been raised as arguments against intubation there are certain considerations strongly in favor of the procedure in proper cases. Charles G. Johnston and his associates at Wayne University, Detroit, using intestinal intubation, have reported a mortality of 9.3 per cent in small intestinal obstructions. Leigh, Nelson and Swensen at the New York Presbyterian Hospital had a mortality of 5.9 per cent in 68 cases. The death rate from this condition in their hospital for the years immediately prior to their introduction of the method was 27.6 per cent.

The staff of the Gastro-Intestinal Section of this hospital has classified obstructive lesions in regard to their clinical importance on a scale of + to ++++ without regard to their cause or location. Eliminating the mild (+) cases leaves 100 patients whose symptoms justified a ++ to ++++ rating. Of these 17 died. Of the

17, three were due to terminal carcinomatosis with obstruction as a more or less incidental finding; two old men died of pneumonia in spite of decompression, one having had a basal bronchiectasis for 30 years; four died of general peritonitis, one being tuberculous; two died following partial resection of the colon for ulcerative colitis and exhibited a combined picture of chronic cachexia and infection as the background on which the obstruction developed; one patient died of spontaneous intra-abdominal hemorrhage from asclerotic omental vessel, and one from complications resulting from a severe fall that broke six bones and lacerated his lung.

In most if not all of these patients the prognosis under any circumstances was extremely grave and the obstruction was probably not the determining factor in the patient's death. In four more cases the death was due primarily to obstruction and should have been prevented. Two of these were rectosigmoid annular carcinomas. The third was an obstruction of the ileum, decompressed and diagnosed before operation by the passage of a tube. The patient was 81 years old with a chronic cough. Because of this the tube was removed on the second post-operative day. This was a mistake, as it proved, for a fresh obstructing angulation formed at the operative site with the development of an abscess and subsequently a spreading infection. Finally, a boy of eleven died of a post-operative obstruction in the presence of a severe mesenteritis with massive lymph adenopathy which had occasioned the diagnosis of appendicitis and the consequent appendectomy. I saw him several days after the operation because a tube had not successfully decompressed him. Failing to recognize that a loop of gut had become gangrenous I felt that the risk of re-operation in the desperately sick boy was greater than that incurred by a continued conservative program. The patient died. Of the hundred cases of mixed large and small intestinal obstruction and paralytic ileus with and without peritonitis that seemed obstructed enough to warrant a ++ to ++++ rating the gross mortality was 17 per cent and the mortality of cases with potentially remediable disorders about 4 to 6 per cent.

SUMMARY

The use of small intestinal intubation will materially reduce the risk from intestinal obstruction whether in the small or the large bowel. The passage of the tube is a technique that must be carefully studied, however. It cannot be left to inexperienced individuals if any measure of success is to be obtained. From the doctor's point of view its chief disadvantage is the time that is required and the frequent supervision necessary, at least during the first 24 hours after the patient's admission. The accumulating statistics on

the results obtained by this procedure, however, warrant the opinion that this time is well spent.

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Gout

Gonorrheal arthritis, rheumatic fever, trauma, acute bursitis, hemophilia, acute rheumatoid arthritis and septic joint are the main conditions in which acute arthritis occurs. The clinical features of all are so different from gout that no difficulty should be experienced in differentiating them, provided gout occupies a prominent place in the mind when one is thinking what a case of acute arthritis may be. If gout is not seen until the stage of chronic gouty arthritis has been reached, the differential diagnosis will lie between gout and rheumatoid or hypertrophic arthritis. The history of onset is the most important differential feature, hypertrophic arthritis being always, and rheumatoid arthritis usually, insidious in onset, whereas chronic gouty arthritis is invariably preceded by acute attacks with complete remission.

This condition is rarely fatal in the acute attack; however, it is prone to return, and has a tendency to become chronic. Chronic gout shortens the life expectancy an average of five years. There is diminished resistance, and the patient often dies of uremia.—H. C. Thompson, M.D., Shelby, N. Car.; *The N. Car. Med. Jr.*, Vol. 1, No. 8, August, 1940.

A Brief Summary of Malignant Neoplasms Proved at Autopsy Which Simulated Pulmonary Tuberculosis

R. J. RITTERHOFF, M.D.

IN 1447 necropsies done during a 20-year period ending 1939, there were 20 malignant neoplasms, 19 of which simulated pulmonary tuberculosis. Of these 15 were referred with a diagnosis of either far or moderately advanced pulmonary tuberculosis, nine of which had confirmatory X-rays prior to admission; three cases were admitted with an X-ray diagnosis of either tuberculosis or neoplasm; and one case with X-ray evidence of either tuberculosis or bronchiectasis. Bacteriologic confirmation was present in only three cases, one of which was later proved at autopsy to be non-tuberculous. Sputum examinations were not done in 10 cases.

That these cases presented diagnostic problems from a clinical standpoint is attested by the fact that in general there was agreement between the referral diagnosis and admission clinical diagnosis, there being disagreement in only three cases, which were diagnosed as neoplastic processes on admission rather than tuberculous. On subsequent study, during the average 57-day period of hospitalization, final diagnosis of neoplasm was made in seven cases, and of neoplasm or tuberculosis in four cases. Analysis of the records disclosed that adequate roentgenographic work-up with proper interpretation and repeatedly negative sputum examinations were most important in disclosing neoplasms, as X-ray was confirmatory in four of six cases, diagnosed clinically, and diagnostic of neoplasm in five considered as tuberculous. Thus, out of eleven cases diagnosed antemortem, nine were either confirmed or diagnosed by the roentgenologist. The remaining eight cases disclosed at postmortem were considered clinically as far or moderately advanced pulmonary tuberculosis in seven cases and as bronchiectasis in one case. X-ray diagnoses in general confirmed the clinical, except for two cases clinically diagnosed as tuberculosis, which were not diagnosed on X-ray. Of those clinical and roentgenographically considered as pulmonary tuberculosis, four were confirmed at necropsy, one inactive, one far advanced active, and two active minimal cases, disclosed by microscopic sections.

This group of patients consisted of twelve males and seven females, with average ages of

The Author

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49.9 $\pm$ 1.5 and 51.4 $\pm$ 2.6 years, respectively. The mean age of those cases having cancer and tuberculosis was 46 $\pm$ 3.8 years. The difference between these two groups is not significant. However, there is a significant difference between the age of the cancer group and that of the autopsied tuberculous white males, who had the greatest life expectancy, 43.3 $\pm$ 0.62 years, in this series of necropsies. If we consider, then, those cases autopsied above the age of 46, which comprise approximately 25 per cent of all autopsies, the percentage of malignant neoplasms becomes 5.5 per cent rather than 1.3 per cent for the entire series. This suggests that cases above 45 years of age presenting clinical and X-ray findings of chronic chest disease should be more strongly considered as having neoplastic processes rather than tuberculous, as was done in this series, particularly when concentrated sputum examinations are negative for acid-fast bacilli.

The symptomatology presented by this group differed but slightly from that of any chronic inflammatory lung disease. Probably the most significant was the fact that the average duration of symptoms prior to admission was only nine months, and that a history of previous chronic pulmonary disease, more specifically tuberculosis, was conspicuously infrequent. Dyspnoea, chest pain, slight cough, occasionally productive of blood tinged sputum, were prominent symptoms among four of the eight cases of bronchogenic carcinoma. The other four cases of bronchogenic carcinoma had symptoms more suggestive of pulmonary tuberculosis, one of which at autopsy had far advanced tuberculosis. In the group of primary pleural, lymphoblastic, and metastatic neoplasms, dyspnoea, dysphagia, superficial lymphadenopathy, cerebral manifestations and thrombophlebitis were the prominent findings. Of this latter group of eleven cases,

Percy Shields Laboratory of the Hamilton County Tuberculosis Hospital (sub-department in the Department of Medicine, College of Medicine, University of Cincinnati), Dr. John Skaviem, Medical Director.

Read before the Cincinnati Academy of Medicine, May 3, 1940.

only three had histories more suggestive of tuberculosis than neoplasm; in two of these minimal active tuberculosis was found on microscopic study.

Bronchoscopic examination was diagnostic in one of two cases of epidermoid bronchogenic carcinoma, and of no aid in the bronchogenic adenocarcinomas. Contrast visualization of the bronchi was of great aid in localizing the lesion. Low grade fever, anemia, leucocytosis, increased sedimentation indices were constant findings and of no diagnostic aid. Blood tinged pleural fluids, negative for acid-fast bacilli on guinea pig inoculation, were suggestive findings in three cases; as were consistently negative sputum examinations for acid-fast bacilli. However, two cases had a positive sputum smear, who subsequently had no tuberculosis at autopsy. Guinea pigs inoculated with sputum from these two cases were negative for tuberculosis. These were in all probability saprophytic organisms, rather than tubercle bacilli.

Lung suction biopsies and cytologic studies of sputa or pleural fluids for neoplastic cells were not done in these cases.

Type	Without Tbc.	With Tbc.	Thoracic Involve.	Total Cases	% of Total
Bronchogenic Carcinoma ..	7	1	8	8	40
Epidermoid	(2)	(1)			
Adeno	(5)	(0)			
Lymphosarcoma	2	0	2	2	10
Endothelioma	2	0	2	2	10
Hodgkins	1	1	1	2	10
Plasma Cell Myeloma	0	1	1	1	5
Hypernephroma	1	1	1	2	10
Carcinoma of Stomach	1	0	1	1	5
Carcinoma of Uterus	1	0	0	1	5
Carcinoma of Esophagus.....	1	0	1	1	5
	16	4	17	20	100%

Of these, 14 had primary thoracic involvement; two were metastatic to the lungs, and one plasma cell myeloma involved the mediastinal lymph nodes along with the generalized osseous processes. Three cases had no pulmonary involvement—one carcinoma of the uterus, one hypernephroma, and one Hodgkin's disease. Of the last two cases, the former had far advanced active pulmonary tuberculosis, and the latter had minimal active pulmonary tuberculosis. Active pulmonary tuberculosis was present in only two others—minimal in a case of plasma cell myeloma and far advanced in one case of bronchogenic epidermoid carcinoma. Of the entire series of autopsies, only 0.28 per cent had associated active pulmonary tuberculosis and cancer.

COMMENT AND SUMMARY

The low incidence of malignant neoplasms in this autopsy series can be explained first by the fact that as a group they were not of the cancer age, and secondly, by the fact that effective "screening out" of cases with neoplastic processes has apparently been done by the various referral physicians. Possibly a "waiting list" of

patients for admission to this hospital, which treats only active pulmonary tuberculosis, has contributed to this low incidence, as questionable cases are not likely to be so readily admitted. This group of neoplasms, however, comprised 29 per cent of all proved non-tuberculous deaths. There are numerous reports of coincidental active tuberculosis and malignant neoplasm; briefly, the percentage of incidence of malignant neoplasms in active tuberculosis varies from 0.15 per cent as reported by Schneider¹ from the Maryland State Sanatorium, 1.2 per cent as reported separately by Pearl⁶ of Hopkins and Petter and Fenger² of Glen Lake Sanatorium of Minnesota, to 4.4 per cent by Lubarsch⁶ of Germany. In this series only 0.28 per cent of all cases had cancer. Pearl,⁶ in his statistical analysis, came to the conclusion that the two processes are antagonistic, which is partially supported by the experimental work of Reffel, Centanni and Rezzesi, and Teutschlander.⁶ Carlson and Bell,³ and Cooper,⁴ on a statistical basis believe that when the two lesions occur together it is merely coincidental, and that the only way tuberculosis prevents cancer is that it kills the patient before he reaches the cancer age. Ewing's belief that tuberculosis favors the development of cancer is not generally supported by recent reports.

There was 55 per cent agreement between the final clinical and necropsy diagnoses, of this, 20 per cent were diagnosed as either tuberculosis or neoplasm. There was 45 per cent disagreement between the final clinical and necropsy diagnoses, of which 15 per cent was partially correct in that active pulmonary tuberculosis was proved postmortem. In view of the fact that the incidence of cancer is steadily increasing and that pulmonary tuberculosis does occur not infrequently in those of "cancer age", particularly in white males, it becomes apparent that this diagnostic problem can only be met by more thorough studies of those cases above 45 years of age presenting initial symptoms of pulmonary disease. Various laboratory procedures, such as stereoscopic chest X-rays, direct and indirect visualization of the bronchi, cytologic and bacteriologic studies of pleural fluids and sputa, lung suction or bronchoscopic or lymph node biopsies, if used more intensively and properly interpreted, will lead more often to the correct diagnosis of either cancer, tuberculosis, or both.

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Eye Affections Secondary to General Diseases

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THE medical and surgical specialties, including ophthalmology, have developed as the result of the rapid accumulation of knowledge, and the great advance in technical procedures. The pace of progress has been so rapid in all fields that it has been impossible for the general medical practitioner to keep up with the details in all of them. Nevertheless, he needs to have a thorough comprehension of the principles, and also the ability to coordinate the detailed findings of perhaps several specialists in making his individual diagnoses. Consultation with specialists, however, is not always available nor feasible, and then the general medical practitioner must be prepared to make some study of the special organs. It is essential in many cases that at least a partial examination of the eyes be made. A review of some of the simplest and most essential procedures may be of interest as a preliminary to the discussion of the eye signs and symptoms of certain general and constitutional diseases.

GENERAL EXAMINATION OF THE EYES

Visual Acuity—The first step in making an eye examination is to determine the visual acuity. Test cards of the Snellen type are satisfactory for this purpose. They are placed 20 feet from the patient, and the visual acuity of each eye is recorded separately. Every patient whose vision is impaired should be subjected to additional investigation. The defect in vision may indicate a functional disturbance which requires correcting lenses, or some disease of the eye, or both. Eyesight is impaired when there is disease of the eye, except in a few early cases.

Examination of the Lids and Cornea—After the visual acuity has been determined, a general inspection of the lids and external portion of the eye discloses signs of inflammation of the lids or the eyeball and the presence and source of purulent or mucoid secretion. When the tear sac is infected, secretion may be expressed into the conjunctival sac by pressure over the angle between the eyeball and the nose.

Inspection of the cornea reveals whether the normal bright reflex is absent as the result of inflammation or scars. Corneal sensitivity is tested by lightly touching the cornea with a wisp of cotton. This is the most delicate test available of the function of the fifth nerve.

Examination of the Pupils—Examination of the pupillary reflexes is one of the most impor-

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tant steps in making an examination of the eyes. This is accomplished in a dark or darkened room. Three reflexes are observed: the direct, the consensual, and the accommodative convergence reaction. The direct reflex is tested by having the patient look at a distant object, with one eye covered, and then directing a beam of light into the other. The exposed pupil should contract rapidly, displaying the direct reflex. The covered eye should also contract: this is the consensual reflex. The accommodative convergence reaction is obtained by having the patient first gaze at a distance under constant illumination, and then having him focus on a near object. As the gaze is shifted from the distant to the near object, the pupil should contract. A patient who displays absence of the reaction to direct light, with presence of the convergence reaction, is said to have an Argyll-Robertson pupil. This eye sign was first described by Argyll-Robertson in 1869. In some instances it is difficult to judge whether or not there is a slight pupillary reaction. This may be determined more accurately by observing the pupil under magnification, which may reveal sections of active pupil.

The size and shape of the pupils are significant. Irregularity in shape usually is caused by adhesions and inflammation which may be disclosed by the use of a mydriatic drug. Insignificant differences in the pupil, with normal reactions, are not rare: these may have been produced by trauma during birth or childhood. The size of the pupils is so variable in different persons, according to the emotions of the patient and the degree of illumination, that comparisons can only be approximate unless the examination is made under carefully controlled conditions.

Determination of the Peripheral Fields—It is important to determine the degree of peripheral or lateral vision, in addition to the macular or central vision. This measurement may yield significant information in glaucoma and in diseases of the central nervous system, especially

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tumors. As a rule, this examination is made with special equipment, a perimeter, but a rough examination may be carried out simply and quickly without it. The patient is seated directly opposite the examiner at a distance of about one meter. One of the patient's eyes is covered and the other is directed steadily at the examiner's opposite eye. The examiner's finger or test object is then extended midway between them beyond the periphery of vision and is slowly moved inward until it is seen by the patient. The point at which the object is first seen is noted in comparison to the examiner's field of vision in various meridians. If the examiner has a normal field of vision, this test affords a rough, but valuable estimate of the peripheral fields and will usually reveal any gross defects. If any are suspected, detailed studies should be made.

Examination of the Ocular Muscles—A superficial examination of the extra-ocular muscles should be included in a general examination of the eyes. This is done by noting whether the eyes, singly and together, move freely in all directions. If a muscle is paralyzed or paretic, one eye will lag in its movement. There also may be diplopia, which usually indicates that the condition is of recent origin. Gross imbalances of the muscles may be noted by asking the patient to look at a light and to cover one eye at a time, noting the shift in the eyes as fixation is alternated.

The procedures just described yield considerable information concerning the function of several of the cranial nerves. That of the optic, or second cranial nerve, is tested by determining visual acuity; of the third, fourth and sixth, by observation of the extra-ocular muscles; of the seventh, by noting whether the lids can be opened and closed properly; and of the fifth by the degree of corneal sensitivity. Injury to the entire third nerve causes dilation of the pupil and limitation of motion of the eyeball, except for outward movement. Injury to the sixth nerve makes complete outward movement impossible and injury to the fourth nerve impairs the ability to look downward and inward. Isolated, transient muscular paralyses usually are due to syphilis, multiple sclerosis, arteriosclerosis or encephalitis.

Ophthalmoscopic Examination—The final procedure in a general examination of the eyes necessitates an ophthalmoscope, and every medical man should be familiar with the use of this instrument. Usually the pupil should be slightly dilated to get a good view, but it is not difficult to use the ophthalmoscope to observe the optic discs and vessels and to note gross defects.

OCULAR SIGNS AND SYMPTOMS OF GENERAL DISEASES

Headache—Headache is a symptom which may result from various conditions and hence a care-

ful evaluation of the type, time of occurrence, and associated symptoms, is of great importance, in making a diagnosis. Eye strain may be overlooked as an etiologic factor in many cases. A slight error of refraction, particularly hyperopia and astigmatism, frequently is a cause of headache, even though the visual acuity is good and the headache may not accompany use of the eyes. Headache also is produced by fatigue of the ciliary muscle, and imbalances of the ocular muscles. The situation of a headache due to eye-strain may be any part of the head, but frequently is supra-orbital or frontal, and sometimes occipital. The headache often is provoked by use of the eyes. The time of onset is variable. Headache on awaking may be due to eye strain, because of the sudden necessity for accommodative function. Other symptoms produced by eye strain are blurring, irritation and burning, blepharitis, lacrimation, photophobia and incapacity of the eyes for sustained effort.

In the presence of persistent headaches, brain tumor and glaucoma should be considered. Headaches due to glaucoma can be differentiated by noting the increased tension of the eyeball. Headaches caused by migraine, by disease of the frontal sinuses, tabes, herpes zoster ophthalmicus, and by hypertension, nephritis, diabetes and anemia, usually can be ruled out by history and examination.

Multiple Sclerosis—Ocular symptoms are a prominent feature of multiple sclerosis. Acute scotomas, or blind areas in the field of vision, due to retrobulbar neuritis, frequently are present. The scotoma often is unilateral and frequently the optic neuritis appears years before the symptoms of generalized disease. The reduction of vision caused by inflammation of the optic nerve may be transient, but is present in both the acute and chronic forms, in about 50 per cent of cases.¹ Paralysis of the muscles, usually produced by damage to the sixth cranial nerve, occurs in 25 to 40 per cent of cases of multiple sclerosis and is sometimes associated with facial paralysis. Any facial palsy which indicates that the chief branches of the nerve are involved should suggest the possibility of the presence of multiple sclerosis. Some of the so-called rheumatic facial and sixth nerve paralyses also are probably due to this disease. Argyll-Robertson pupils have been reported in multiple sclerosis, but are observed but rarely.²

Syphilis—Numerous ocular signs appear in the presence of syphilis of the central nervous system. The Argyll-Robertson pupil is the most characteristic finding, since some abnormality of the pupillary reaction is present in about 90 per cent of cases.³

According to Adie,⁴ the Argyll-Robertson pupil is "small, usually bilateral, constant in size and unaltered by light or shade; it contracts

promptly on convergence and dilates again promptly when convergence ceases; it dilates slowly and imperfectly to mydriatics". Other affections of the central nervous system produce a pupillary reaction similar to the Argyll-Robertson pupil and have to be carefully differentiated. Adie collected approximately 100 cases in which the pupils are inactive to light but contract slowly to convergence, and dilate again slowly. This condition is usually found in women and is unilateral in about 80 per cent of cases. The affected pupil is larger than the opposite pupil and sometimes the condition is accompanied by absence of one ankle reflex. This disorder represents a "kind of perversion of nervous activity, runs a benign course, is compatible with long life, and is not syphilitic in origin".

Paralysis of the cranial nerves, particularly of the oculomotor nerve, is another common sign of neurosyphilis. Optic atrophy occurs in 10 to 15 per cent of cases of tabes,⁵ and defects in the visual fields also are quite common. Papilledema or choked disc occurs when the intracranial pressure is increased, particularly in meningovascular syphilis and gumma of the brain.

Besides the neurological signs, iritis and inflammation of the choroid are observed frequently in patients with syphilis. Interstitial keratitis is one of the most characteristic findings of congenital syphilis. A distinct inequality of the pupils should also suggest the possibility of a syphilitic infection.

Increased intracranial pressure, especially that produced by a growth in the temporal lobe, may also produce inequality in the size of the pupils. Horner's syndrome is associated with tumors of the cervical and upper thoracic regions, such as aneurysm of the aorta. This type of lesion causes paralysis of the sympathetic nerve, thereby producing a unilateral miosis. In the presence of early apical tuberculosis or tumor of the esophagus or neck, the pupil may be dilated on the same side; later this may change to a contracted pupil.

DIAGNOSTIC VALUE OF PUPILLARY REACTIONS

Pupillary reactions are of great diagnostic value in other diseases. Paralysis of the pupil, with impaired accommodation in a feverish patient may be the single sign of a beginning meningitis. Usually, however, this is accompanied by paralyses indicating invasion of other cranial nerves. These paralyses are observed more frequently in tuberculous or syphilitic inflammation, and are of more rare occurrence in otogenic meningitis. Pupillary paralyses are also found in some cases of chronic poisoning, and in diseases such as diphtheria, influenza, botulism, meat and fish poisoning, grave gastro-enteritis, and paratyphoid fever.

Encephalitis—Epidemic encephalitis has prominent ocular symptoms. The oculomotor nerve frequently is affected, because encephalitis is a disseminated infection of the central nervous system, usually affecting the midbrain. Kennedy⁶ described the ocular symptoms, and designated transient double vision as "the most frequent single diagnostic feature in the early stages of encephalitis". Nystagmus is almost the rule. Ptosis of the eyelids, sometimes associated with paralysis of both external rectus muscles, is frequent. Rhythmic movements of one or both eyes, Argyll-Robertson pupils, and paresis of accommodation, which is usually bilateral, in contrast to syphilitic paresis, which is usually unilateral, also are symptoms of acute encephalitis. Occasionally retrobulbar neuritis and papilledema are seen.

In chronic encephalitis, "many involuntary or almost involuntary movements which too loosely have been classified among the tics or habit spasms",⁶ are observed. Hartman⁵ states that the ocular symptoms become permanent and frequently paroxysmal. Disturbances of associated movements such as nystagmus, insufficiency of convergence and paralysis of vertical or lateral associated movements are common in chronic encephalitis. Pupillary reactions sometimes show lasting disturbances. Paroxysmal attacks of sudden upward movement of the eyeballs, spasm of the eyelids, and painful abnormal sensations about the lids and eyeball are not uncommon.

Septicemia—Patients with fever of doubtful origin should be subjected to ophthalmoscopic examination, in order to elicit signs of septicemia, which may be difficult to diagnose. The presence of septic retinitis, usually accompanied by retinal hemorrhages, is conclusive evidence of septicemia. The petechial hemorrhages of the conjunctiva in malignant endocarditis are characteristic. Friedenwald and Rones⁷ found nine cases of inflammatory lesions of the choroid in 32 cases of septicemia caused by various organisms.

Trichinosis—Trichinosis is observed quite frequently in Ohio. The eye signs may be helpful in making the diagnosis in this disease. Edema of the lids, pain on movement of the eyes, and conjunctival inflammation, with swelling over the four rectus muscles may be the first clue to the presence of the parasite. My associates and I have observed two such cases in our own practice. The finding of a high eosinophilia and study of a section of muscle confirmed the diagnosis of trichinosis.

Hyperthyroidism—All the ocular signs in Grave's disease, or exophthalmic goiter, are limited to the outside of the eyeball or its appendages. The most common signs are exophthalmos; a failure of the upper lid to move downward promptly and evenly as the eyeball

moves from above downward; a convulsive retraction of the upper lid as an upward moving object is fixed; pigmentation and swelling of the eyelids, usually the upper; weakness of convergence; and absence of brow wrinkling.

EXOPHTHALMUS

Exophthalmos, or protrusion of the eyeball beyond its normal limit, is one of the three classical signs of hyperthyroidism. The degree of exophthalmos is measured from the external bony orbital rim to the apex of the cornea. Normally a straight line from the brow to the lower orbital rim will just touch the cornea. The two eyes may be compared by standing behind and over the patient while he is looking upward, and then noting any difference in the prominence of the two eyes. In 400 cases of exophthalmic goiter, Bram⁸ found that exophthalmos was absent in only 10 per cent. In 90 per cent, the exophthalmos varied from slight to extreme. The exophthalmos was unilateral in 7½ per cent and equal in 6½ per cent. He stated that age did not affect the incidence and the exophthalmos usually preceded other symptoms of hyperthyroidism. The extent of exophthalmos had little relationship to the severity of the disease. It was the last symptom to disappear and was permanent in some cases of long duration. As a rule, vision is not impaired by exophthalmos, but severe cases may lead to blindness through corneal ulceration and scarring, or panophthalmitis.

Benedict⁹ explains exophthalmos on the basis of "increased mass in the orbit through the absorption of water. The rectus muscles are thickened and histologically show signs of inflammation. "The orbital fat, however, is not increased in amount nor is it under tension. It is probable that edema of the eyelids and orbital tissues is brought about through some factor that is independent of the amount of thyroxin liberated by the thyroid gland".

There is a particularly distressing type of exophthalmos which may be present in toxic hyperthyroidism, may follow thyroidectomy, or may occur in hypothyroidism. Many cases of this type have been reported in the literature. Burch¹⁰ reported one case in which both eyes were lost 18 months following complete relief of goiter symptoms by thyroidectomy. According to Naffziger,¹¹ microscopic examination showed that the orbit was tightly packed with extra-ocular muscles, which were swollen to five to ten times their normal size. The color and size of the muscles varied with the stage of the pathologic process; often they were pale. Fibrosis and hyaline change were present. Naffziger¹² recommends treating these severe cases of exophthalmos by an "operative procedure to remove completely the roof of the orbit and that of the optic foramen by intracranial approach. The

orbital fascia and the ring of Zinn are opened for purposes of decompression and to permit expansion of the contents of the orbit and optic nerve".

The exophthalmos of thyroid disease must be differentiated from that seen in Moeller-Barlow's disease, or scurvy. In infantile scurvy, usually found in children less than two years of age, the exophthalmos is caused by hemorrhage into the orbit and is accompanied by conjunctival and retinal hemorrhages.¹³

Unilateral exophthalmos may easily be confused with a retrobulbar tumor and must be differentiated carefully. Mild inflammation of the orbit, secondary to sinus disease or an allergic manifestation must also be considered. All patients with exophthalmos should have a careful blood study to rule out blood dyscrasias, particularly myelogenous or lymphatic leukemia, which may produce orbital tumors composed of lymphatic tissue.

Diabetes Mellitus—Although the statement has been made that one of every six patients with diabetes mellitus has some eye complication, this disease does not present many external signs of diagnostic value. In a comatose patient, an extremely soft eyeball should increase the suspicion of diabetes. Sudden changes in vision due to alteration in the refracting power of the ocular media are frequently encountered in diabetes and result chiefly from variations in the level of the blood sugar. Retinitis, cataracts, hemorrhages, iritis, and paralysis of the extra-ocular muscles are other symptoms of diabetes.

DIABETIC RETINITIS

Diabetic retinitis, which is almost always seen in older patients, is difficult to differentiate from renal and arteriosclerotic retinitis, although the hemorrhages and exudates are sometimes characteristic enough to make a definite diagnosis. Once a diabetic retinitis has developed, insulin seems to have little influence in preventing its progression. The retinitis of diabetes does not have as grave prognostic significance as that of renal disease or of arteriosclerosis. Nettleship³ found that 60 per cent of a group of 48 patients lived longer than two years after diabetic retinitis was discovered.

Cataract is a common finding in diabetes, even in young patients. O'Brien¹⁴ observed an incidence of 16 per cent in 125 young diabetics, aged from two to 33 years. Cataracts may be removed without undue risk, provided the diabetic condition is carefully controlled by means of insulin and diet.

Pituitary Disease—Since the pituitary gland is in such close relation to the optic chiasm, any enlargement or swelling of this organ may produce ocular signs as the result of pressure on the optic nerves. The chief symptoms of pituitary

tumor are: changes in the visual fields, changes in the optic nerves, headache, and signs of glandular dysfunction. Bitemporal hemianopsia or blindness of both temporal fields is a common symptom of pituitary tumor, although it is by no means universal. Studies of the peripheral fields are always important in cases of this type, not only from the diagnostic standpoint, but also because they are the most reliable index to the progress of the disease. The variability in the perimetric findings is due to the variable position of the optic chiasm in relation to the pituitary body. Certain bizarre defects are the result of pressure of the vessels of the circle of Willis or of irregular protuberances from the surface of the tumor.

Frazier and Grant¹⁵ reported the symptoms in 100 cases of pituitary tumor. Of these, 87 had failing vision as the outstanding indication for treatment. Optic atrophy was present in 41 cases, and in almost half of these, there was total or almost total blindness in one eye with deterioration of vision in the other.

Cardiovascular-renal Diseases — The arterial blood vessels of the ocular fundus are similar to the vessels of other organs and hence subject to hyaline degeneration and atheromatous change. The fundus is the only place in the body where these changes may be observed directly. The most striking signs of arterial damage are manifested at the arteriovenous crossings, by changes in the caliber and reflex of the retinal arteries, and by the presence of edema, hemorrhages and exudates.

Arteriosclerosis and renal disease may be differentiated by means of ophthalmoscopic examination, and should be, for proper prognostic evaluation. Lyle¹⁶ has stated that in patients with moderate and severe retinal lesions of arteriosclerosis, the number of deaths in the first two years is more than four times the number of deaths in patients with slight or no changes in the fundus; the ratio reaches three to one in the first five years. More cerebrovascular accidents occur as the retinal arteriosclerosis develops into arteriosclerotic retinitis. The prognosis is uncertain in the presence of senile arteriosclerotic changes in the eye. With the appearance of the retinitis of nephritis, the prognosis is more grave. Moore¹⁷ says "it is a long established formula, which states that a patient seldom lives two years after discovery of retinitis, and this may be accepted". "On the other hand, the retinitis appearing in pregnancy, being an expression of severe toxemia, does not have a grave prognosis. in those cases not having a true nephritis".

There is a condition called uremic amaurosis seen more rarely than the retinitis of pregnancy in which the patient loses the sight of both eyes. The fundi show little or no evidence of disease,

and the blindness is due to the effect of toxins on the brain cells. The vision is restored as soon as the uremia disappears. I have observed two patients with this condition, in recent years, and both recovered their vision.

To discuss all the eye signs and symptoms secondary to general diseases would require a great deal of time. In this short presentation, it has been possible only to mention those most frequently encountered, and of greatest interest to the practitioner of general medicine. In addition, the essential features of a superficial examination of the eyes have been reviewed.

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As a result of widespread use of collapse therapy, in its dual capacity as a public health instrument and a medium of cure, the medical personnel of the Chicago Municipal Tuberculosis Sanitarium have become convinced that it offers the patient his best chance and the community its best protection.—A. J. Hruby, M.D.; *Amer. Rev. of Tuberc.*, Sept., 1939.

Care of the Newborn

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IT is obviously impossible to cover completely the care and problems of the newborn infant in the time at our disposal. Those things which to the writer seem most important will be covered in detail and other points briefly mentioned. Opinions expressed are naturally those of the author and may in some instances differ somewhat from the conventional textbook statements but they are based on personal experience.

The needs of the full term, normal newborn infant are in order of importance: (1) adequate respiration, (2) maintenance of proper body temperature, (3) complete rest, (4) sometime later, adequate fluids and (5) still later, adequate food intake. A considerable amount of shock accompanies the experience of being born—a point too often not fully appreciated.

Resuscitation¹ is likely to be one of the first problems of the newborn infant. Numerous babies will seem slow to take the initial breath. Allowing sufficient time for the CO₂ in the infant respiratory center to reach the necessary concentration is the most important single factor. Many men feel it is wise to wait an arbitrary two or three minutes by the clock before attempting artificial stimulation. In this interval excess secretions are aspirated from the nose and mouth and pharynx by means of a soft rubber syringe or soft-rubber tracheal catheter. The catheter should ordinarily be kept strictly out of the larynx and trachea, since careless or too frequent use of the tracheal catheter seriously traumatizes the laryngeal structures. Its use for true laryngo-tracheal aspiration should be reserved for those rare cases where it is really necessary.

Hazardous procedures such as swinging the infant by the heels, immersion in cold water, vigorously striking the back or even the buttocks should be avoided. Such irrational methods, in spite of good intentions, have too often been the cause of infant death or disability. Gentle snapping or spanking of the buttocks, or soles of the feet; or a few drops from the anesthetist's can of ether sprinkled on the chest are not objectionable but probably are ineffective. The theory that newborn respiration is initiated by afferent stimuli to the respiratory center has been discarded. There is, therefore, no scientific basis for the use of skin irritation or the various forms of shock therapy. As pointed out by Heyman¹ the

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infant must have the following requisites if it is to initiate normal respiration after birth:

1. A receptive, functioning respiratory center, integrated with
2. Respiratory muscles capable of response.
3. An ample supply of oxygen.
4. Clear upper respiratory passages.
5. Distensible lungs.

Absence of one or more of these essentials results in asphyxia. Studies in experimental animals and the human fetus by Bonar,² Snyder,³ and others have shown normal intrauterine fetal respiratory movements in preparation for regular neonatal breathing. Anoxemia is the underlying cause of almost all disruptions of this mechanism. Alternating, gentle, slow, light pressure on the chest (NOT the abdomen) followed by sudden release of pressure is often of aid, especially if a mixture of CO₂-O₂ is administered by rubber funnel or mask held closely over the infant's face when inspirations occur. The various respiratory stimulants (such as coramine, or metrazol), hypodermically in moderate doses are also desirable. Where available, the use by careful and experienced individuals of an automatic inhalator-resuscitator (such as the E and J resuscitator) is an effective, safe and very desirable method of resuscitation.

If possible, it is wise to administer to most infants a carbon dioxide-oxygen mixture of 5 to 10 per cent of CO₂ by funnel, or rubber mask, for about three minutes of each hour, for the first eight to ten hours. This helps to assure adequate lung expansion. Use of indwelling nasal catheters for this purpose in these infants is unnecessary and possibly hazardous.

After the cord has been cut, the crying infant wrapped in warm blankets, the excess mucus wiped away, and the silver nitrate instilled in each eye, the infant should be placed partially on his side in the basket or bassinet, which is kept level. This horizontal semi-lateral position facilitates drainage of secretions out of the nose

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and mouth. In the commonly used supine head-lowered position, secretions accumulating in the back of the throat, tend to interfere with easy breathing. The dependant-head position, with its associated rise in intracranial pressure, would seem at least theoretically unwise since all infants are potential candidates for intracranial hemorrhage.

The baby's temperature should be maintained by artificial heat if necessary at 97° to 98° rectally. Infants appear to do better if their body temperature is not artificially maintained at the supposed normal of 98.6 to 99 rectal. Room temperature where the newborn infant is situated should be from 72° to 75° the first few days, thereafter 70°—72°. The temperature of the room where the infant is bathed should be 75° to 80°.

Various routines are in use for the initial and subsequent cleansing of the newborn infant. A few institutions⁴ are doing nothing to the newborn infant except to wipe off excess blood. The surplus vernix caseosa is not removed. The skin is neither bathed nor oiled during the infant's stay in the hospital. Warm water is used to clean the buttocks following stools. Within less than 24 hours the vernix has disappeared leaving the skin pink and clean. Contrary to expectation there is practically no odor. Advocates of this plan stress the avoidance of skin irritation due to chemical antiseptics or mechanical abrasions from too vigorous scrubbing. A larger group use no soap and water on the infant, performing the initial cleansing with sterile mineral oil or cotton seed oil to which has been added either ½ per cent ammoniated mercury or a very small amount of hydroxy-quinoline. It is important that the oil be sterilized either by autoclaving or by the addition of a mild antiseptic such as the above named. Many institutions still follow the older custom of an initial soap and water sponging followed by complete inunction of the infant with an ointment of 1 per cent to 3 per cent ammoniated mercury in a petrolatum or lanolin base. Inunction with ammoniated mercury in any percentage and particularly those as high as 3 per cent will result in a few cases of chemical dermatitis and in rare instances an infant will show a marked sensitivity to the ammoniated mercury. Most institutions prefer to not use water after the original cleansing, repeating the mildly antiseptic oil bath daily.

Various types of umbilical binders and bands are in use to hold a protective gauze dressing over the navel for the first three or four days. After that time umbilical binders are undesirable, difficult to keep in place, and may tend to prevent proper drying of the navel after the cord falls off. Clothing should be buttonless in so far as possible, string ties usually being preferable to buttons or pins. Clothing that comes in

contact with the infant's skin should be all cotton; avoid putting silk and wool garments next to the skin. It is convenient to use rustproof safety pins not smaller than size Nos. 2½ or 3. These are 1½ inches long. While they are less attractive in appearance, they are much easier to handle and are less likely to be lost among the infant's covers with consequent worry as to whether or not the pin has been swallowed or aspirated. Also, they are more difficult for the older infant to swallow if they do find their way into his mouth.

FEEDINGS

It seems to me that the most important single point in feeding is not to begin too soon trying to urge food upon the infant. Nothing should be offered the newborn—water, breast, or formula—until he is free of mucus and has had a chance to recover from his birth shock. Usually this will mean nothing by mouth for the first eight to twelve hours. The second twelve hours the infant may be offered plain water or a 4 per cent sugar-water (Karo, Cartose, Beta-Lactose, etc.) not over 2 ounces every three hours. He will usually accept ½ ounce to 1½ ounces of this per feeding. Frequently an infant fed thus will vomit after the first two water feedings, the vomitus consisting largely of mucus and possibly some swallowed amniotic fluid. Subsequent water feedings will usually be retained. The infant is put to breast at approximately 18 to 24 hours after delivery; sooner than 18 hours is felt to be undesirable, 24 hours or thereafter is preferable.

There is considerable difference of opinion as to the desirability of offering formula after putting the baby to breast during the first few days. I usually offer infants not more than one ounce of formula after each breast feeding until the mother's milk supply has become established, usually on the third or fourth postpartum day. Those who object to complemental feedings during the first week insist that if the infant is hungry he will seek the breast more eagerly and will nurse more vigorously with resultant increase in the maternal milk supply.⁵ Those in favor of complemental formula feedings at this stage argue that unless these are given the infant gets an inadequate amount of fluid for a period of several days, is likely to become somewhat dehydrated, drowsy, weakened, and will nurse less vigorously and for a much shorter time because of fatigue. We have all seen instances that will support both points of view.

Perhaps I am prejudiced but I am definitely not convinced that breast feeding, or even breast milk, is indispensably necessary if the mother is to have a healthy and well developed baby. Too many times I have seen mothers with their first baby conscientiously trying to feed a one- or two-month-old infant exclusively on breast and providing the infant a quite inade-

quate amount of breast milk. The baby, somewhat under optimum weight for age, is fussy, fretful and cries almost continuously; both parents are fatigued, irritable and distraught. The addition of complementary formula feedings and subsequent replacement of breast feeding with adequate formula, has so far routinely solved this situation for me. The infant, no longer hungry, ceases to cry, gains weight at an optimum rate, and sleeps through between feedings. I believe that the use of complementary formula feedings should always be a temporary arrangement, lasting not more than four or six weeks. If, after such a trial period, the mother does not produce enough milk to fully meet the growing child's increasing needs, I consider it best to discontinue all breast feedings.

When complementary formula feedings are tried as a permanent arrangement, the mother must literally "feed the baby twice" at each scheduled feeding. She must endure the combined inconveniences of both types of feedings and she misses almost all of the respective advantages of either type taken singly (speed of feeding, simplicity, minimum effort). Her work is more than doubled; she has little or no time for rest and recreation; she is likely to become a chronically tired, worried, somewhat unhappy mother.

Occasionally it is possible to permanently replace one or more entire breast feedings by formula—so-called supplementary formula. Usually this system, like the other, ends with ultimate change to bottle alone, as the maternal milk supply steadily diminishes.

I feel that if the mother has an adequate supply of breast milk, and a baby who is able to obtain it from her breasts without difficulty, she is fortunate as well as rare. I sincerely believe that an infant properly fed on an adequate formula with capable medical service at frequent intervals during the first year will do at least equally as well as the breast fed infant. I will agree that an infant who will never again be seen by a physician, once the postpartum care is completed, will be safer on breast milk than on some formula probably given the mother by a neighbor or so-called "friend".

If an infant is to be bottle fed from birth, the first formula feeding should be offered at about the age of 24 hours, the amount varying somewhat with the size and vigor of the infant. Usually it is wise to let the infant weighing 6½ to 7 pounds take as much as he will of not more than two ounces each of six feedings at four-hour intervals. The infant should be offered an ounce of water or sugar-water between feedings when awake, at least three or four times during each 24-hour period the first two weeks, thereafter at least twice daily.

In preparing and feeding a formula for the newborn several principles should be considered:

(1) Sterility and proper temperature of the formula at the time it is offered, (2) Proper technique of offering the bottle, (3) The formula should represent about 20 calories per ounce, (4) The milk should be so modified that a finely divided curd results. This latter is accomplished by heating, by the addition of acids such as lactic acid or lemon juice, by the older method of adding cereals such as barley water, by the combination of heat and vacuum evaporation as in the evaporated milks, or by drying the milk as in the various powdered milks and modified milks (such as S.M.A., Similac, Bakers, etc.) The fat should be in a rather finely divided form as is the case in most of the proprietary formulae and in evaporated milk. The fat content (percentage) of the prepared formula should at least roughly approximate that of breast milk (3.5 per cent).

I prefer to offer the infant his fill of more concentrated feedings (within limits) rather than offering him a large volume of relatively dilute formula. I feel that there is less regurgitation and a more contented infant on this routine. Usually these normal full-term infants may safely be started on any one of the following formulas:

- (1) Similac powder: 1 "Similac measure" to each 2 ounces sterile water.
- (2) S. M. A. powder: 1 "S. M. A. measure" to each ounce sterile water.
- (3) Bakers Powdered Modified Milk: 1 tablespoonful to each 2 ounces sterile water.
- (4) Irradiated Evaporated Milk: 6 ounces, boiled water 9 ounces, carbohydrate (such as Karo, Dextri-Maltose No. 1, Cartose, Beta-Lactose, etc) ½ to ¾ ounce only.

This represents about 4½ to 5 per cent added sugar or a total carbohydrate of just under 7 per cent. I feel there is some advantage in not going above these figures in the early weeks. Pasteurized whole cow's milk that has been boiled for at least three minutes, used in the proportion of two parts of milk to one of boiled water, plus a carbohydrate, may be used, but at least in my hands it has been much less satisfactory than the above formulae.

VOMITING

During the first 24 to 48 hours vomiting is most commonly the result of previously swallowed mucus, of a too rapidly taken formula or of crying and air swallowing resulting in regurgitation or belch. Occasionally the holes in the rubber nipple will be too small, the infant is unable to obtain much milk, swallows air, and will regurgitate air and milk. Most vomiting during the first two weeks is on a basis of mechanical error in feeding technique. Often too large a volume of formula is offered, an effort is made to urge the infant to take more than

he desires, or the infant is handled or played with shortly after feeding and vomits because of being disturbed.

It is extremely rare to encounter a pyloric stenosis or even pylorospasm during the first three days. By the age of four weeks, sometimes earlier, pyloric stenosis must be considered in chronic projectile vomiting, especially if in males. Occasionally a rectal examination of the chronically vomiting three- or four-week-old infant will reveal an extremely tight rectal sphincter. If the physician will carefully and very slowly dilate this rectal sphincter with a well lubricated gloved finger using the little finger and, as the sphincter relaxes, successively utilizing the next larger fingers in order towards the index finger, many of these infants will rather dramatically cease vomiting. I do not know the reason for its effectiveness but I have seen this method give good results in a sufficiently large number of infants that I feel it is worth trying.

DIARRHEA

Stools of the newborn infant progress through a characteristic series of changes. The daily four or five meconium stools of the first two or three days are gradually replaced, as food intake increases, by the half-dozen or more daily small sour-smelling, thin, greenish-brown, curded stools of the second or transitional period, which lasts from one to four days. By the fifth or sixth day the intestinal hyperactivity usually has decreased, permitting greater water absorption from the feces. The infant thereafter has progressively fewer and more homogeneous stools until by the end of the second week there normally will be from two to four pasty orange or yellow stools each day.

Cooper, Graeme Mitchell et al⁶ have shown that 75 per cent of diarrhea in infants under one year of age is not of dysentery origin. The majority of diarrheas occurring in the newborn period as well as later months of the first year appear to be on a dietary basis and usually respond promptly and effectively to dietary management. This means the withholding of everything but water for a period of at least eight to twelve hours, followed by an extremely dilute formula with no added carbohydrates. Three per cent or 5 per cent glucose in physiologic saline is administered freely by hypodermoclysis in amounts sufficient to correct dehydration. Usually the formula will be a very dilute mixture of skimmed milk and water (not over 50 per cent milk) boiled for three to five minutes. If preferred, one of the powdered protein milks (such as Meade Johnson) in a proportion of one measure of powdered milk to four ounces sterile water may be used, the concentration later being increased to one measure of powder to three ounces of water, as the diarrhea improves. Fol-

lowing this, normal feedings are gradually resumed.

During the past several years numerous reports and investigations have described a highly fatal "epidemic diarrhea of the newborn". This acute, highly communicable diarrheal disorder of unknown etiology affects newborn infants in lying-in institutions during the first few weeks of life, spreading rapidly from baby to baby. According to Frant and Abramson^{7,8} the differentiation of the disease from other diarrheal disorders of early infancy is based upon the specificity of the disease for newborn infants, its lack of spread to older infants and adults, the mode of onset, preliminary symptoms, early afebrile course, typical watery yellow stools free from pus and blood, resultant acidosis, coma, dehydration, and the later temperature rises indicating terminal complications. All cultures and agglutination tests yield negative results.

CONSTIPATION

Constipation is almost never a problem in the early newborn period. Anytime after the third or fourth week the mother may state that her infant is "constipated". As described by the mother, this may mean either infrequent stools, hard formed stools, or both. I instruct mothers not to worry unless the infant has gone at least 48 hours without a stool. By that time the infant usually will have had a spontaneous bowel movement. After that time a vaseline lubricated glycerine suppository is inserted rectally or the mother gives the infant a small enema of plain water. If the mother finds it necessary to repeat suppositories or enemata, more frequent and softer stools are obtained by slightly increasing the carbohydrate in the infant formula as by adding one or two teaspoons of dark Karo syrup to the day's formula of Similac or S.M.A. or by similarly increasing the amount of carbohydrate in the evaporated milk formula. In addition to, or instead of, this method, we sometimes recommend from one to two ounces of strained home-cooked prune juice given daily. This is conveniently given by adding it to the day's quantity of orange juice.

PHYSIOLOGIC JAUNDICE

Jaundice in the newborn is always a cause of concern. Usually it is the so-called physiologic jaundice (icterus neonatorum) but should be distinguished from erythroblastosis (icterus gravis), obstructive jaundice and jaundice of syphilitic origin. Physiologic jaundice is usually clinically evident by the fourth day. While all newborn infants have an increased icteric index, jaundice does not become clinically evident until the icteric index⁹ is over 30. Since the degree of jaundice is roughly dependent upon the relation between the amount of dye produced and the amount excreted from the body, and since only

a limited amount of dye can be excreted in a given volume of urine, it is evident that anything which tends to produce dehydration of the infant will impair excretion and thereby accentuate the jaundice. As the degree of the jaundice increases, the infant becomes progressively more lethargic and more reluctant to take fluids. He nurses either the breast or bottle very poorly, his intake of liquid decreases, his jaundice and drowsiness increase producing a vicious cycle. The early subcutaneous administration of 3 per cent to 5 per cent of glucose in physiologic saline in amounts of 75 to 100 cc. once or twice daily to these infants produces prompt and dramatic improvement in the jaundice, the lethargy and the ability to take food. Usually subcutaneous fluids are required for three to four days. Infants will survive their physiologic jaundice if it is mild. Most of the very mild cases of physiologic jaundice are self limited, the jaundice disappearing completely within three weeks or less, even without treatment. In the occasional, very severe cases where the jaundice is intense and there is marked drowsiness with inadequate fluid intake, the child may well die unless some effective method of fluid administration is begun promptly.

Every infant with severe jaundice should have a complete blood count done to rule out the possibility of erythroblastosis. The normal white blood cell count in the newborn is approximately 20,000 WBC the first 48 hours—dropping to 10,000—12,000 WBC thereafter. If the total WBC reported is greatly in excess of these figures, the stained smear should be carefully re-examined for erythroblasts (immature nucleated red blood cells with darkly staining cytoplasm), which may easily be confused with leukocytes. In such a situation a reported WBC count of 50,000 cells on review will usually prove to be 20,000 WBC and 30,000 erythroblasts. Erythroblastosis carries a most unhappy prognosis, as contrasted with the relatively innocuous physiologic jaundice.

AMMONIACAL DIAPER DERMATITIS

The diagnosis of this condition is usually made by the mother and is obvious to anyone within breathing distance. The acrid smell of the ammonia may be quite intense. If untreated the infant is quite likely to develop on the buttocks first a rash, then a deep eroded area that may simulate impetigo especially if the lesions become secondarily infected. The cause is believed to be the germ bacillus ammoniagenes. Any antiseptic which will destroy the organism will stop the ammoniacal diaper. For many years a weak solution of bichloride of mercury was used as a final diaper rinse but I have been reluctant to permit bichloride tablets in a home where there are children. If, after washing in a neutral soap and three clear-water rinses, the diapers are wrung out loosely in a solution of approximately two

tablespoonfuls of commercial borax to each one quart of water, it will be found that the ammonia odor will permanently disappear in about 24 hours. Use of paper diaper liners will nullify the effectiveness of this prophylaxis.

TETANY IN THE NEWBORN

It has been pointed out by Backwin¹⁰ that most newborn infants have a physiologic hypoparathyroidism and this is the probable explanation of the occasional cases of tetany seen in the newborn. These are usually of the low calcium and high phosphorus type¹¹ and respond promptly to the oral administration of some form of calcium such as calcium gluconate gr. 15 b.i.d.

HEART MURMURS

Cardiac murmurs are heard in less than 2 per cent of newborn infants yet autopsies in the first month of life reveal congenital cardiac anomalies in several times this number (4.7 to 11.6 per cent). About 50 per cent of the heart murmurs heard in newborns progressively fade and completely disappear by later years.¹² From their series of 7,673 newborn infants, Lyons and his co-workers conclude that: "In the period of readjustment of circulation during the first few weeks of life, patencies of the foramen ovale and of the ductus arteriosus usually do not produce clinical cardiac murmurs" and that "many other congenital anomalies of the heart do not cause murmurs during the neonatal period". It would seem that absence of cardiac murmur at birth did not rule out possible presence of a serious cardiac defect. Certainly the presence of a heart murmur in the neonatal period has less than a 50 per cent chance of indicating congenital cardiac anomaly.

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Blood Dyscrasias of Infancy and Childhood

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PRIMITIVE blood cells arise in the embryonal yolk sac, proliferate, and give rise to two types of cells: (1) The primitive erythroblasts elaborate hemoglobin, serve as O₂ carriers, and finally die. (2) Hemocytoblasts divide by mitosis and form secondary erythroblasts which are identical with those in the adult bone marrow.¹ The white blood cells develop simultaneously with second generation erythrocytes in liver, bone marrow, and spleen. Lymphocytes are formed in lymphatic organs, chiefly spleen and lymph nodes, but also in the thymus, tonsils, and organs containing lymph follicles.

After birth there is a cessation in the extramedullary islands, and production of erythrocytes and myeloid leucocytes is limited to bone marrow. Formation of lymphocytes continues in the lymph glands.

The newborn child contains only red marrow. The fat cells appear mostly around the third year, and by the fourteenth or fifteenth year resemble those in the adult.

Blood values in the mature newborn infant are as follows: Erythrocytes range from five to eight million, but following birth there is a rapid fall, and average values are reached in 10 to 14 days. The high values at birth are said to be related to the low intrauterine oxygen tension. All evidence points to an increased hemolysis of circulating erythrocytes in the newborn period. The erythrocyte is about 8.5 u. in diameter. Anisocytosis, poikilocytosis, normoblasts, and reticulocytes are always present in the first few days.

Many changes take place at this time. These proceed in an orderly way and in a normal manner. On the other hand, however, there may be interruptions in the sequence generally followed in hematopoiesis and hemolysis, for which there is no satisfactory explanation. Shortly after birth, as stated before, the extramedullary centers cease to function, and hematopoiesis occurs entirely in the bone marrow.

One of the first things with which we are impressed in the newborn is the darker color of the blood as compared to that in later infancy and childhood. The larger number of erythrocytes and increase in hemoglobin account for this difference. It is this difference which provides for adequate maintenance of tissue respiration in the environment of low oxygen tension existing in intrauterine life.

There is a tendency to macrocytosis. Cells with a diameter of 10 u. are not infrequently found. This variation in size usually disappears some

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time during the first week, and is practically always gone by the second week. The average diameter gradually decreases, reaching the normal by the sixth month.

Normoblasts are always present, and it is universally accepted that as many as 5,000 per cu. mm. at birth is not considered abnormal. These immature forms usually disappear by the second day, and are rarely present at the end of the first week. Nucleated red blood cells younger than normoblasts are always considered pathologic, even in the newborn. Kato's studies show reticulocytes to vary from 0.1 per cent to 5.5 per cent with an average of 1.4 per cent to 1.9 per cent in the first 36 hours. They decline to 0.5 per cent, then rise to 2 per cent to 3 per cent by the third month.²

The average hemoglobin is about 128 per cent at birth, hence the absolute hemoglobin content of the red blood cell is higher at this time than at any period in life. After birth it falls rapidly to 75 per cent at three months of age, and then rises to 80 per cent or 90 per cent at the end of the first year.

The color index is usually over one at birth, dropping till about three months when it reaches a value which it usually maintains.

The average number of leucocytes is about 18,000 per cu. mm., but this is quite variable. It drops rapidly during the first few days, but rises to about 17,000 by the twelfth day. After this, it usually falls during the first 12 years of life, at which time it reaches normal adult value. Neutrophils account for the increased total count at birth. The secondary rise reached at the twelfth day is due to an increase in lymphocytes. There is a shift toward immaturity at birth, so myelocytes are seen frequently. This shift disappears usually by the first week.

The platelets are the only cellular element not increased at birth, and range from 250,000 to 500,000. Bleeding and coagulation are usually within normal limits.

PHYSIOLOGIC CHANGES

At birth the child enters a period of readjustment, during which changes lead to an equi-

¹Read before the Miami County Medical Society, April 5, 1940.

librium between hemolysis and hematopoiesis. The surplus of intrauterine erythrocytes is no longer necessary to maintain adequate tissue respiration, because the child is now in an environment of higher oxygen tension. This is the most widely accepted explanation of the post-partum decrease in hemoglobin and red blood cells. The reduction is brought about by hemolysis.

That these changes proceed in a sequence is considered physiologic. Included in these physiologic changes are icterus neonatorum and the so-called physiologic anemia of the newborn. The preponderance of evidence indicates that icterus neonatorum is due to an increase of bilirubin, as a result of the hemolysis of the surplus erythrocytes. The released hemoglobin is converted to bilirubin and a colorless iron-containing residue by phagocytic cells of the liver, spleen, and bone marrow. This bilirubin then passes into the intestines and is converted to urobilinogen. The liver then is unable to excrete the excessive amount. The blood bilirubin rises, and jaundice results. But one cannot exclude some sort of functional incapacity of the liver as an additional factor.³ The icterus usually makes its appearance on the third or fourth day, and subsides in eight to ten days. It requires no treatment. The physiologic anemia is likewise inconsequential and is not influenced by anti-anemic iron preparations.

In contrast to these two physiologic changes, certain pathologic conditions occur at or shortly after birth. In this group of blood dyscrasias encountered in the neonatal period are three interrelated entities classified as congenital anemias: (1) erythroblastosis fetalis, (2) icterus gravis neonatorum, and (3) hydrops congenitus universalis.

Erythroblastosis fetalis is relatively rare. It was first reported in 1912 by Rautmann. It presents the following picture: An enlargement of the liver and spleen, usually generalized edema, occasionally only jaundice, palor of the body tissues, and large numbers of circulating nucleated erythrocytes. Enlargement and edema of the placenta and occasionally jaundice may be present. There may be some association with familial icterus. The treatment is frequent transfusions, which, if instituted within 48 hours, have been successful. The intravenous method is best, and next the intraperitoneal route.

Icterus gravis neonatorum should always be suspected at birth in those cases with deeply colored orange skin, and with a vernix caseosa and amniotic fluid of the same color. Other than the color and a firm spleen, no other abnormalities are found. The blood count found in this dyscrasia has a typical count as follows: HB 45 per cent, RBC 1,500,000, WBC 25,000. Erythroblasts are abundant, from 2,000 to 50,000 per cu. mm. There is red cell fragmentation, anisocytosis,

poikilocytosis (the Vandenberg direct and indirect is positive, signifying biliary obstruction and hemolysis). The mortality rate is around 70 per cent. The familial tendency has been observed repeatedly, i.e., occurrence of one child with icterus gravis, another with hydrops fetalis, and another with erythroblastosis fetalis.⁴ The English are strong advocates of the hemolytic hypothesis. However, Blackfan, Diamond, and Batty believe it is a disturbance of the metabolism of the hematopoietic system, resulting in either a failure in maturation or an overgrowth of immature forms; second, in delivery of immature forms; and third, an increased destruction of erythrocytes. In other words, hemolysis is secondary and hemolysis takes place because nucleated red blood cells are more prone to destruction.

Lastly, the third member of the triad, hydrops congenitus universalis, has the same picture as erythroblastosis fetalis except that the edema is the predominant feature. The placenta shows extensive edema, the amniotic fluid is often a deep yellow color, and the infant presents a universal edema with palor of the skin and tissue. Since it reaches its greatest severity in utero, almost all are born dead or die shortly after birth.⁵

HEMOORRHAGIC DISEASE OF THE NEWBORN

Next chronologically, the most common entity found in the neonatal period is hemorrhagic disease of the newborn. There are many conditions which cause hemorrhage of the newborn, such as sepsis, trauma, and congenital syphilis. With these causes eliminated, there still remains a certain group, that of hemorrhagic disease of the newborn. An estimation of frequency is difficult, since many have confused other entities with it in drawing their conclusions. It is estimated to be around 3 per cent of cases. The cause is still in dispute. The contributory factors are unknown, but the effects in the blood are now better known. Obviously there is a dysfunction of the clotting mechanism of the blood. Rhoda first and later Lucas confirmed the fact that the coagulation time was distinctly longer in the first four days of life, than for the following period. Whipple was able to show in two cases that prothrombin was almost entirely absent, while Schloss and Commiski found a deficiency of prothrombin in one case and fibrinogen in another. Kugelmass also found a marked decrease in fibrinogen in several cases. While the observations may be different, they may all be found to have a common explanation, as to source of thrombin, or its precursor prothrombin. Whether platelets alone are the source of prothrombin is still controversial. But since plasma from which platelets are removed will not clot, and plasma with a high concentration of platelets clots rapidly, for practical purposes it is reasonable to assume that platelets are the principal

source of thrombin. All observers agree that the platelet level in the newborn is constant and relatively high, but the platelets resist disintegration till the fourth day. The resistance decreases thereafter until the tenth day. Since clotting depends on the disintegration of platelets, it was found that faulty coagulation was due to a dysfunction of disintegration, on a qualitative basis, and explains the deficiency in thrombin or prothrombin in the first four days. But the factors contributing to this dysfunction are still unknown. Some of the causes propounded by various workers are: deficiency in vitamin B content of the mother's diet by Moore, and a deficiency of protein in the mother's diet by Kugelmass.⁶ However, the diet of the mother as an etiological factor offers the best approach, since it is true that today almost no cases are seen in the better class of patients or in patients with proper dietary supervision.

The symptoms are palor and hemorrhage, occurring on the third to fourth day. Hemorrhage may occur in any organ or part of the body. The coagulation time is usually over 10 minutes (normal, five minutes).

PROGNOSIS

Prognosis depends upon the location of the hemorrhage, the degree, and treatment. If treatment is instituted early, the mortality rate ranges around 6 per cent. Treatment consists of immediate transfusion. Intramuscular transfusion is successful in the milder types, but in the severe cases intravenous transfusions of 50 to 100 cc. are essential. The most recent observations have been on the role of vitamin K as to etiology, prevention, and treatment. Numerous investigators have called attention to the unusual prothrombin content of the blood in newborns. They have also shown the apparent effect of vitamin K concentrate when administered by mouth.⁷ In treated cases no unusual prothrombin deficiency was noted, while in control groups prothrombin deficiencies were observed in the first four days of life. The prothrombin approaches the normal adult level by the fifth day. Waddell and Guerry have consistently verified these results. In every instance vitamin K concentrate administered by mouth has been followed by a prompt reduction of prothrombin time and clotting time, with a cessation of bleeding. In addition, with administration to mothers two weeks before onset of labor, prothrombin deficiencies were not discovered in this series of infants. These investigators feel that vitamin K used in this preventive manner will materially cut down intracranial hemorrhages in normal labor, and hemorrhagic disease of the newborn.⁸

ANEMIA

In the anemia of the premature, the incidence and degree is inversely proportional to the birth weight. In infants weighing less than 2,000

grams, an anemia is always present. The moderate premature shows the same increase in red cells as the full-term baby at birth, but the essential difference is a marked increase in premature cells. Reticulocytes often run as high as 10 per cent of the total number of red cells, and nucleated forms are invariably present. The leucocytes show the same tendency to immaturity. These immature cells may persist for several months, and in general are directly proportional to the degree of immaturity. With this fact in mind, it is evident that almost all prematures become anemic unless an effort is made to prevent it. The picture is usually quite evident by the third month, with a loss of color, enlargement of lymph nodes, liver, and spleen. Frequently an associated rickets is present. There is a decrease in all the blood elements with a color index below 1, a leukopenia, lymphocytosis, and an increase in reticulocytes and normoblasts. Since iron storage takes place the last three months of fetal life, there is a deficiency and early depletion of iron in the premature. This condition and a functional inadequacy of the hematopoietic system due to imperfect development, are the factors responsible for this very common anemia. It responds well to iron and liver therapy, with an adequate diet rich in vitamins.

The nutritional anemia is an entity of importance to all because it is commonly and constantly seen in routine practice. It might better be termed deficiency anemia. The most conspicuous and generally recognized example of nutritional anemia is that which results from overlong use of the milk diet without proper additions. This has frequently been termed milk anemia, and is an excellent example of exhaustion of iron reserve. It is usually assumed that this reserve in the absence of iron-containing foods is practically exhausted by the sixth or seventh month, and that beyond this period a hypochromic anemia is likely to develop unless available iron is given in the food. The consensus of opinion now is that this so-called alimentary or nutritional anemia is due to a dietary deficiency.⁹ Two of the vitamins, C and G, are believed by Straus and Castle to be essential to the normal maturation of the erythrocyte.

Clinically there is a palor, lassitude, loss of muscle tone, anorexia, and periodic vomiting. The blood picture is a marked hypochromia with little or no diminution in red cells. Normoblasts, reticulocytes, and microcytosis are frequently found. This anemia responds well to iron and vitamin therapy. The addition of copper as a catalyst has not been confirmed by Cooley and many other investigators. Transfusion is occasionally indispensable when there is a slow response to liver and iron, in order to cut down the period of recovery. Following transfusion there is an immediate and active regenerative response. It

is unwise to procrastinate and allow a supervening infection to develop.

ACUTE HEMOLYTIC ANEMIA

Acute hemolytic anemia, frequently called Lederer's anemia (1925), is characterized by fever toxemia, stupor, progressive anemia, leukocytosis, splenomegaly, and intense jaundice. Recovery usually follows one to two transfusions.

Primary aplastic anemia is a profound progressive anemia, with little or no splenomegaly, a tendency to obstinate bleeding, and a fatal outcome. The pathology is that of a complete marrow degeneration or atrophy, with a decrease in all the blood elements, and an absence of reticulocytes and normoblasts. The Vandenbergh test is negative, eliminating the consideration of a hemolytic process.¹⁰

There are secondary aplastic anemias following sepsis, aleukemic leukemia, Hodgkin's disease, X-ray, arsphenamin and benzol poisoning. Treatment is based on an attempt to stimulate the marrow, and consists of transfusions, administration of yellow bone marrow, pentnucleotide, and liver and iron.

Von Jaksch's anemia, or pseudo-leukemia infantum, is today considered by few hematologists as a definite clinical entity. It is a convenient descriptive term for a picture seen occasionally in the more severe nutritional anemias of early childhood, or as a result of infection with red cell destruction and marrow hyperplasia. It is characterized by splenomegaly, enlargement of the liver, marked decrease of erythrocytes, color index above one, numerous normoblasts, and a leukocytosis.

Next are the group of constitutional hemolytic anemias. First, congenital or hereditary hemolytic icterus was described by Hayem in 1898. It is hereditary and frequently familial and follows the Mendelian law of dominant characteristics. It may occur in early childhood, but is most commonly detected at the school age. Males are affected twice as frequently as females. The characteristic feature of the disease, the hemolysis, may be slight and continuous, or sudden and severe. The latter state is described as a hemolytic crisis. The picture is that of repeated attacks of jaundice, splenomegaly, and abdominal pain. At the time of the hemolytic crisis there are colic-like pains, especially in the splenic region. The urine contains no bilirubin, while urobilin and urobilinogen are present in large amounts. Stools are intense yellow-brown, because of the increased excretion of bile pigments. In addition, bleeding from the mucous membranes, retinal vessels, and skin is observed. The blood reveals two to three million red blood cells after a crisis. Normoblasts and reticulocytes are present, denoting bone marrow activity. Two findings are characteristic of familial hemolytic icterus: microcytosis, and a decrease in

osmotic resistance to hypotonic salt solution, or increased fragility test. An indirect Vandenbergh and an increase in bilirubin are added diagnostic points. Crises are precipitated by fatigue, infection, exertion, and psychic excitation. The course is chronic. There is no cure; but in general the patients are little discomforted. The treatment is the use of anti-anemic factors, but the most brilliant successes of splenectomy occur in this entity. The crises, anemia, jaundice, and excretion of urobilin are greatly decreased, but the microcytosis, increased fragility, and bilirubinemia remain unchanged.

Second of the constitutional anemias, sickle cell anemia, is a hemolytic anemia occurring in the Negro race, and in those with Negro ancestry, with the erythrocyte assuming peculiar crescent shapes called sickling. At least 5 to 10 per cent of all Negroes show sickling or sickle cell anemia. This cell trait is hereditary, and is essentially an anemia of early years. It is characterized clinically by an anemia of considerable degree, with moderate jaundice, splenomegaly, abdominal pains, pains in the extremities, leg ulcers, and general weakness. The treatment includes transfusions, liver, iron, and, in selected cases, splenectomy.

ERYTHROBLASTIC ANEMIA

Erythroblastic anemia or thalassemia, last of the constitutional group, is a grave progressive anemia, occurring in children of the races inhabiting the north shore of the Mediterranean Sea. It is congenital and often familial. No hereditary evidence is available, since no patients have lived to have children. Cooley and Lee in 1925 differentiated this entity from Von Jaksch's pseudo-leukemia, when they reported five cases with splenomegaly, anemia, and peculiar bone changes. The clinical features are a progressive anemia with large numbers of normoblasts and erythroblasts, splenomegaly, hepatomegaly, enlargements of the lymph nodes, distinctive X-ray findings, mongoloid facies, icteric skin discoloration, and urobilinuria.

The onset of thalassemia is most commonly between two and four years of age. It is slowly and progressively fatal in from 15 months to several years. The blood picture is characterized by a low hemoglobin and red cell count, low color index, nucleated red blood cells from a few hundred to a hundred thousand, a leukocytosis ten to twenty-five thousand, normal platelets, achromia, poikilocytosis, and anisocytosis. The peculiar mongoloid facies usually seen after the first year of the disease is due to a prominence of the orbital and malar bones giving the appearance of slant eyes. The X-rays show a porous appearance of the long bones with trabeculations and thinning of the cortex. The flat bones of the skull show a medullary thickening with radial striations or spicules, and a thinning of the tables. Treatment is unsuccessful, including

transfusions, liver and iron, and splenectomy. Splenectomy does, however, give the most relief, but all cases terminate fatally.³

Splenic anemia, or Banti's disease, as a definite hemotological entity is doubtful. Giffin in "Oxford Medicine" aptly characterizes it as a progressive cirrhosis of the spleen and liver. It can be summed up as follows: a chronic progressive disease of unknown etiology, characterized by splenomegaly, secondary anemia, leukopenia, tendency to hemorrhage, particularly gastrointestinal, increased blood cell formation and destruction, cirrhotic changes in the liver with ascites and jaundice at later stages.

Thrombosis of the splenic or portal veins is perhaps an important etiological factor. Warthin pointed out that no case of Banti's disease is of value in an etiological study unless the veins are carefully examined. The anemia is a normocytic hypochromic type rarely profound unless there is extensive hemorrhage. There is a leukopenia of the neutropenic type. The most constant phenomena are gastro-intestinal hemorrhages with later the ascitic or cirrhotic symptoms coming to the foreground. They exhibit great chronicity, with splenectomy offering the brightest outlook.

Next are the group of blood dyscrasias with hemorrhage: Hemophilia, with which you are all acquainted, is a hereditary hemorrhagic disease, sex-linked, with recessive characteristics according to Mendelian laws. There is a marked delay in coagulation time. Numerous treatments, such as estrogenic substance, snake venom, vitamin C, and placental extract, have been tried. But on the whole there seems to be no treatment which can be depended upon with any certainty to modify the manifestations, except the use of transfusions when the occasion arises. Since prothrombin levels are normal, vitamin K is ineffective in hemophilia.¹¹ It is probably a matter of functional inferiority of the platelets, namely, a delay in thrombokinese.

THE PURPURAS

The purpuras are divided into three main groups: first, the true or thrombocytopenic purpura, in which females are affected somewhat more than males. The onset is usually sudden with extensive hemorrhages from skin and mucous membranes. Effusions of blood into the joints are rare, in contrast to hemophilia. The blood shows the hemoglobin and red blood cells decreased according to the extent of hemorrhages, and the thrombocytes are markedly decreased to thirty-five thousand or below. A thrombopenia below thirty-five thousand (the critical value) is always accompanied by spontaneous hemorrhages. Coagulation time is normal, clot retractility is completely absent, and the bleeding time is increased two or three times. The majority of investigators are of the opinion that not only the thrombopenia but other vessel com-

ponents, such as capillary endothelium or innervation, as well, are responsible. Therapy consists of splenectomy, especially in the fulminating type. This carries about 20 per cent mortality. Other forms of therapy are ligation of the splenic artery, X-ray, irradiation of spleen and flat bones, arsenic, Congo red, snake venom, and transfusion.

Secondly, the essential vascular purpura, the Henoch-Schonlein and anaphylactoid purpura, is an entity characterized by skin hemorrhages, painful enlargements of the joints, intestinal colic with hemorrhage, hemorrhagic nephritis, slight rises in temperature, papular pruritic eruptions, a tendency to urticaria, and edema of the hands, feet, face and joints. The blood shows normal platelet count, normal coagulation and bleeding time, and a normal clot retractility. The main symptom of the disease is a periodic abnormal permeability of the vessels, probably preceded by a capillary paralysis. The prognosis is good.

Lastly, symptomatic purpura follows diseases of the blood such as leukemia, chemical poisons (as benzol, salvarsan, and bacterial toxins) and infections (as sepsis, typhoid, diphtheria, and variola).

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Because tuberculosis is found 13.5 times as often in families of known cases as in the general population, we should look for tuberculosis in the homes of persons who have it.—Crusader, May, 1940.

Clinical Study of Intestinal Parasites

H. H. INGLING, M.D.

LITERATURE is filled with accounts of many drugs and heroic treatments advised for the treatment of intestinal worms. The ridding of a patient of these worms has always been considered a serious procedure, and was usually begun by starvation and purging before administering the drug and then followed by further purging. This evidently was necessary in the past, as the commonly used anthelmintics were quite toxic, and there were not infrequent side effects. Although treatment for "worms" was a regular procedure of the family physician, a few fatalities have been reported, and Brown¹ points out that definite signs of intoxication, severe injuries and even death, have followed without warning the administration of anthelmintics other than hexylresorcinol.

Fortunately, during the past several years extensive clinical work has been completed in sections infested with human parasites, and the work of Lamson,² Faust,³ Brown,¹ Robbins,⁴ Leonard,⁵ Feirer,⁶ and Stoll,⁷ have definitely established the value of crystalline hexylresorcinol as an unusually safe and effective anthelmintic.

Lamson² and his co-workers pointed out the unusual effectiveness of crystalline hexylresorcinol as an anthelmintic together with its freedom from untoward symptoms following administration. They stated that hexylresorcinol given in crystalline form, in doses of 1.0 gm. to adults, and 0.5 gm. to children on an empty stomach in the morning and followed by a purge of magnesium sulphate in 24 hours removed between 95 and 100 per cent of the ascaris worms, and no toxic symptoms have followed such administrations.

Faust³ and his co-workers emphasize that hexylresorcinol is the drug of choice in the treatment of roundworms, and whipworms, but that the drug must be carefully administered. If pills containing the crystals* are swallowed whole no toxic symptoms have been seen. Faust³ also found that hexylresorcinol, as prescribed for ascariasis, is fairly efficient in removing tapeworm from the intestine, and is the drug of choice for small children harboring this worm. Since it is practically non-toxic, non-toxic treatments may be given within a relatively short time.

Brown¹ in his experiences with the use of

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crystalline hexylresorcinol for the treatment of pinworm infestation, found it to be an efficient therapeutic agent.

Bercovitz⁸ gave a scientific exhibit on intestinal parasites at the A.M.A. Convention in June, 1935, and advised the use of "Caprokol" pills in the treatment of roundworms and pinworms, and later reported its value in the treatment of tapeworm.

These reports clearly demonstrate that crystalline hexylresorcinol is effective against *Ascaris lumbricoides* (roundworm), *Necator americanus* (hookworm), *Hymenolepis nana* (dwarf tapeworm), *Dibothryocephalus* (large tapeworm) and *Enterobius Vermicularis* (pinworm, seatworm, threadworm or whipworm). Furthermore, the parasites are killed outright, thus eliminating the danger of migration of the ascarids, which has sometimes caused death from intestinal obstruction, suffocation, etc., after the administration of other anthelmintics.

A group of 132 Kentucky Mountain rural grade school children were given routine microscopic stool examinations in order to determine the amount of intestinal infestation as evidenced by ova present. These children live in southeastern Kentucky at an altitude of about 2500 feet above sea level and at about 37° north latitude in a rural district where sanitary conditions are bad. They all, of course, go barefooted in warm weather, drink well or spring water that is practically all polluted with surface drainage and use privies that drain on the surface of the ground.

Of the 132 examined 44 were found free of parasites. Forty-two had *Ascaris lumbricoides* alone. Five had *Ascaris lumbricoides* associated with *Necator americanus*. Eleven had *Necator americanus* alone. Two had *Hymenolepis nana* alone, two had *Hymenolepis* associated with *Ascaris trichiura*. Sixteen had *Ascaris trichiura* alone, one had *Ascaris trichiura* associated with *Ascaris vermicularis*. Five had *Ascaris trichiura* associated with *Ascaris lumbricoides*. Two had the combination of *Necator americanus*, *Ascaris*

*"Caprokol Pills," supplied by Sharp & Dohme.

(This is the report of the work done in Pine Mountain, Harlan County, Kentucky, in the fall of 1939 through the cooperation of Sharp & Dohme, the Kentucky State Department of Health, and the Pine Mountain Health Association.)

Submitted May 16, 1940.

trichiura and *Ascaris lumbricoides*. One had *Necator americanus* associated with *Ascaris trichiura*, and one had *Ascaris lumbricoides* associated with *Hymenolepis nana*.

It is likely that the ground and the surface water is kept contaminated with the ova or larvae of the various parasites because of the poor type of privies, thus making drinking water, uncooked foods, and the ground itself (through bare feet for the *Necator americanus*), sources of infestation.

Prior to this study but under my observation some of these children demonstrated symptoms that necessitated medical supervision of the cases.

CASE REPORTS

Case 1.—M. C., male, aged 10 years, developed sudden fever, nausea, vomiting (of *Ascaris lumbricoides*, and gastric fluid), nervousness and mental disturbances, temperature stayed around 100-102° F. for four days. There was no diarrhea. There was tenderness diffuse throughout the abdomen but no masses. Respiratory system was negative. The child was treated with rest, soft and liquid diet, antacids and sedatives until acute symptoms subsided at which time caprokol was given, followed by saline catharis with riddance of many *Ascaris lumbricoides*. The child had been much underweight and weakly for months. His weight and strength improved greatly.

Case 2.—B. B., male, aged eight years, came down with sudden illness, fever, vomiting, colicky abdominal pains marked tenderness in both lower quadrants and prostration were present. Enemas relieved him of his symptoms and treatment with caprokol produced many dead *Ascaris lumbricoides*.

Case 3.—W. C., male, aged 10 years, was known to be harboring *Ascaris lumbricoides* and *Necator americanus*. He became suddenly ill with fever, vomiting (*Ascaris lumbricoides* present in vomitus), severe headaches, signs of meningeal irritation and fright. Fever ranged from normal to 104° F. There was some abdominal soreness but this was not marked. Fever lasted for four days reaching the normal gradually. Patient was treated symptomatically until acute symptoms subsided at which time he was treated as Case 1 and 2 ridding himself of the combined infestation after two treatments with caprokol.

Case 4.—O. H., female, age 12 years, had no acute symptoms but had been dull in school for a long time. She was thin, weak, had a poor appetite, had weak abdominal musculature, was anemic (Hb 70 per cent) and frequently was prone to "bed wetting". Iron and vitamin B complex therapy was given with some improvement but the greatest improvement occurred only after *Ascaris lumbricoides* was discovered in the stools and treated adequately with two treatments of caprokol.

None of the cases later discovered to be harboring *Necator americanus* presented symptoms that were severe enough to bring the patient to the doctor, although undoubtedly their presence was to some extent detrimental to the person's

well being. Those harboring *Ascaris trichiura*, *Hymenolepis nana* and *Ascaris vermicularis* presented no symptoms severe enough to bring them to the doctor.

We, as practicing physicians are all acquainted with the anemia and the lanquor and fatigue that *Necator americanus* produces, with the nervousness and gastric disturbances of *Ascaris lumbricoides*, the pruritus of the anus and vulva due to *Ascaris vermicularis* and the malnutrition associated with lassitude and indigestion due to the tapeworms. We frequently forget about them or disregard them in differential diagnosis and yet microscopic examination of the stool for the presence or absence of the ova is easily done.

Of the cases studied, nine harboring hookworm, 32 harboring round worm and five harboring the combination of the two were treated with caprokol. This was given in doses graduated as to the age or weight of the patient in the morning on an empty stomach. A regular meal was given at noon and regular food was from then on continued. Before breakfast the following morning a saline catharis was given to rid the patient of the dead worms. Caution was taken to avoid crushing of the pills in the patients mouths to prevent the discomfort of slight mucous membrane ulcers. Slight nausea was felt by three patients. None vomited the medicine. None lost any time from school. Microscopic examinations were made of the stools one week after treatment. We found of the total 46 thus treated 39 were free of the parasites after one treatment. Three harboring round worm were found not to be free in one treatment, but were free in two such treatments. Four, all harboring hookworm, were not free with one treatment and unfortunately we were unable to contact them again for a second treatment.

An attempt was made to prevent reinfestation of those freed of their parasites by advising them to build sanitary privies with deep vaults properly walled off, by advising them to seal their well off from surface drainage, advising them from eating uncooked and unwashed vegetables and from going barefooted.

RESULTS

No parasites	44—33%
<i>Ascaris lumbricoides</i> (round worm)	42—32%
<i>Ascaris lumbricoides</i> and <i>Necator americanus</i> (round worm and Hookworm)	5—3.8%
<i>Necator americanus</i> (hookworm)	11—8.3%
<i>Hymenolepis nana</i> (dwarf type)	1—0.8%
<i>Ascaris trichiura</i> and <i>Hymenolepis</i> (whip worm and dwarf type)	2—1.5%
<i>Ascaris trichiura</i> (whip worm)	17—13%
<i>Ascaris Trichiura</i> and <i>Ascaris vermicularis</i> (whip worm and pin worm)	1—0.8%
<i>Ascaris trichiura</i> and <i>Ascaris lumbricoides</i> (whip worm and round worm)	5—3.8%
<i>Necator americanus</i> , <i>Ascaris trichiura</i> and <i>Ascaris lumbricoides</i> (hookworm, whip worm and roundworm)	2—1.5%

Necatur americanus and Ascaris trichiura (hook-worm and whip worm).....	1—0.8%
Hymenolepis nana and Ascaris lumbricoides (dwarf type and roundworm).....	1—0.8%
Hymenolepis nana (dwarf type).....	1—0.8%
Combined and single hookworm infestation.....	19—15%
Combined and single roundworm infestation.....	55—42%

SUMMARY

1. One hundred thirty-two Kentucky rural mountain grade school children examined for ova of intestinal parasites in the stools.

2. Of 32 harboring *Ascaris lumbricoides*, 29 were freed of their parasites with one treatment of caprokol pills, and three were freed in two treatments.

3. Nine harboring *Necatur americanus* were treated with caprokol pills. Five were freed in one treatment, the remaining four still harbored some parasites but further treatment was not done.

4. Five with combined infestations received caprokol pills and all were freed in one treatment.

5. No time was lost from school during treatment.

6. Three complained of slight nausea.

7. Caprokol pills appear to be a very safe and adequate treatment for *Ascaris lumbricoides* and *Necatur americanus*.

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It is to be hoped that the generally accepted opinion that all elderly persons must cough, and that coughing is without danger to those about them, will soon be changed, and that all elderly persons with a chronic cough will be subjected to a physical examination as rigorous as if they were younger.—E. R. Wiese, Amer. Rev. of Tuber., Feb., 1940.

Geriatrics in Country Practice

Owing to the changes in our family life in the country, more old people are living alone (with no young people) than formerly. The lack of, and high cost of labor inhibits its use for people unable to care properly for themselves, and lowered living conditions are the rule.

These old people in winter are usually, owing to their lessened ability to get around, completely confined to two or three rooms. Due to the cost of fuel and the inadequacy of their worn-out stoves, combined with their own enfeebled condition, in a large majority of cases, the rooms are not properly heated or ventilated; few of them have the bedrooms warm enough to lie down in comfort during the daytime; few of them have couches satisfactory for a restful nap, and so they usually sit around either with their feet in the oven or against the stove to keep comfortably warm.

Everyone knows that if the outside of the body is not properly warmed, enough extra heat has to be generated inside to at least partially balance the cold outside. Not being able to properly rest lying down also means an increase of energy used.

These two factors are added to the most common one, that of improper diet. This may be caused either by inability to obtain the proper things, or the feebleness of the old couple, who, because of their weakness, either cannot or do not cook as well as formerly. Therefore, they buy more and more prepared foods, practically all carbohydrates, from the ever-present baker's cart, and while realizing the unsuitability, still they have not ambition or strength enough to remedy it.

Owing to the cost, proteins are in many cases practically eliminated from the diet except such as are in some of the vegetables they eat. The total calories are cut down and the vitamins lowered below minimum requirements.

Eye lesions, general weakness, and dermatitis follow lack of Vitamin A. Loss of appetite and intestinal tone from deficiency of Vitamin B, together with a probable influence on nerve irritations and cardiovascular disturbances.

Everyone is familiar with the symptoms of extreme Vitamin C lack, but many older people have a great variety of conditions readily cleared up by sufficient amounts of this vitamin. Many of the sore tongues, swollen joints, and much of the easy bruising disappears. An increase in Vitamin D may retard arthritis. Whatever the condition, it all boils down to improper diet.—A. J. Fuller, M.D., Pemaquid, Maine; Jr. of the Maine Med. Assn., Vol. XXXI, No. 8, August, 1940.

A Consideration of Some of the Causes of Increased Intracranial Pressure

JOSEPH P. EVANS, M.D.

IN the days of Charcot, the great French neurologist of the second half of the last century, the recognition of increased intracranial pressure depended upon three signs and symptoms which came to be known as Charcot's triad: headache, vomiting, and choked disc. Fortunately much has been learned in the intervening years so that the diagnosis of an intracranial expanding or obstructive lesion can now very often be made long before the appearance of signs of intracranial hypertension. However, there are still cases brought to the hospital in a moribund condition with advanced signs of intracranial hypertension. This fact will, I trust, justify the following presentation in which it is proposed to draw your attention again to some of the protean signs and symptoms which may help in recognizing the impending onset of increased intracranial pressure so that through earlier recognition there may be made possible more satisfactory treatment for the unfortunate sufferer.

For all practical purposes the skull may be regarded as a closed box containing within its walls various elements: the nerve cells with their intracellular fluid content, the supporting cells (largely astrocytes) that make up the framework of the brain, the blood vessels and their contained blood, and finally the cerebrospinal fluid. Under the abnormal circumstances of a space consuming lesion the brain will become crowded for room and its functions will become embarrassed. The cause most commonly thought of as responsible for consumption of space is, of course, tumor. The rate of growth of tumor is an important factor in the appearance of signs indicative of increased intracranial pressure. The rapidly growing tumors cause an earlier and more severe interference with cerebral function. The slower growing tumors give the brain an opportunity to adjust to the new condition, so that it is not impossible for a slow growing tumor to attain a weight of as much as 300 grams, which when it is recalled that the brain itself seldom weighs more than 1500 grams, is obviously a lesion of considerable size. Such tumors may occur in the envelopes surrounding the brain, but at other times tumor may involve brain substance proper,

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and regardless of whether the tumors are extra-cerebral or intracerebral they are of importance as space consuming lesions both because of their local bulk and because of the possibility that they may cause interruption of circulation through the normal cerebrospinal fluid pathways.

Another type of space consuming lesion, which unfortunately very often escapes the attention of the attending physician is the collection of blood in the subdural space, known as subdural hematoma. In this condition which usually results from trauma, free blood escapes into the subdural space where it becomes surrounded by a capsule of connective tissue. These sacs may under certain circumstances be absorbed to a greater or lesser degree. At other times, as shown by Gardner, the broken down blood within the sac may, because of its high protein content, draw fluid into the sac with a resultant increase in the bulk of the hematoma and consequent cerebral compression.

IMPORTANCE OF HEADACHE

The early recognition of intracranial disturbances which eventually will give rise to increased intracranial pressure is a matter of prime importance to the patient. Our efforts should be directed to the recognition of these lesions before they have become of sufficient size to interfere with the cerebral fluid circulation thereby increasing the technical difficulties of their surgical treatment with consequent increasing jeopardy to the individual concerned. I should like to emphasize the importance of headache as a presenting complaint. It is obvious of course that headache is only a symptom, and as such may be indicative

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of a large number of disturbances. However, it must not be lightly set aside.

W. R. (H. H. No. 38731). This patient, aged 56, sustained a slight scalp laceration when struck in the head by the hook of a traveling crane in May of 1938. He was not rendered unconscious. The wound healed uneventfully. The patient however began to complain thereafter of a slight bitemporal headache. This was not particularly troublesome at first, but as time passed the headaches became more and more severe and eventually on the 24th of August, 1938, became excruciating. His own physician whom he had been seeing from time to time was not immediately available and he was seen by another who referred the patient to the hospital. Neurological examination on the morning of admission was reported as essentially negative. However, that afternoon the patient became more stuporous and finally comatose. Examination in the late afternoon showed the pupils to be extremely small and fixed to light. There was rigidity of all the extremities, more so on the right than on the left. Lumbar puncture was done. The initial pressure was 260 mm. of water (the top limit of normal pressure being 200 mm.). There were ten cells in the fluid. Several ccs. of spinal fluid were removed and for some reason that is not clear, probably only as a matter of routine examination, jugular compression was done.

Subsequently the patient's coma became deeper and he was seen in consultation by Doctor Charles Aring, who made a diagnosis of unlocalizable intracranial neoplasm or subdural hematoma, and recommended that exploratory burr holes be placed in search of a hematoma. This impression was concurred in by the neurosurgical consultant and bilateral occipital burr holes were placed. That on the right failed to reveal any pathological change, that on the left showed the underlying dura to be blue. An opening was made through the dura and immediately a gush of reddish-brown liquid was obtained. The hematoma was evacuated, something over an ounce of fluid being obtained. The operation was carried out at about ten o'clock in the evening. Consciousness was never regained, and the patient died the next morning about seven o'clock. Postmortem examination was obtained and showed a large subdural hematoma overlying the left hemisphere. Upon sectioning the brain it was found that there was extensive hemorrhage in the brain stem, and also infarction of the left occipital lobe.

DANGERS OF LUMBAR PUNCTURE

This case is mentioned to emphasize several facts. In the first place the patient's complaint of headache was disregarded by those who saw him over a period of several months. Secondly, no one had made use of an ophthalmoscope until the day of his coma. Examination of his fundi on admission showed early swelling of the optic discs. In the third place, at lumbar puncture an unnecessary amount of fluid was withdrawn. Lumbar puncture in the presence of an increased intracranial pressure is definitely a dangerous proceeding, because there is the possibility of disturbing the hydrodynamic balance, the withdrawal of fluid from below the level of the foramen magnum permitting the brain stem to her-

niate into the foramen magnum with resultant impairment of circulation of the brain stem.

This manoeuvre of itself might not have been such a serious one, but in addition jugular compression was done under circumstances where there was no indication that jugular compression would give any information of value. Furthermore, as indicated by the fact that good responses to jugular compression were obtained, the intracranial pressure was obviously appreciably increased, which simply tended further to embarrass the brain in the presence of an already moderately increased intracranial pressure. The deepening of the coma following lumbar puncture probably indicates that further damage was done to the brain at this time.

In striking contrast to this case is that of another individual with a somewhat similar story. This man (A.C.—H.H. No. 390340) of about 60 was injured in an automobile accident several months before the hospital entry with which we are concerned. He was rendered unconscious and was taken to a hospital where he was kept for a period of ten days. At the end of this time, his convalescence having been uneventful he was discharged. Thereafter he seemed to be quite well, but after a period of a month or two his mental activity became slightly impaired, so that his fellow-workers remarked that he was not up to his usual capacity. Finally one day he had what appeared to be a vascular accident. He was seen by Doctor William Freyhof and Doctor Howard McIntyre. A diagnosis was made of subdural hematoma and he was admitted to the hospital for observation. He improved somewhat for several days. He was seen at noon on one day at which time he appeared to be in good general condition, but by four that afternoon he could not be aroused. Therefore that evening bilateral exploratory burr holes were made. Beneath the openings on the left the dura was found to have a bluish tinge, and there was found underneath a subdural hematoma membrane which was incised. A brownish chocolate-colored fluid escaped under pressure, some 50 ccs. in all. The patient immediately brightened and began conversing. He was discharged from the hospital following an uneventful convalescence and is today back at his work as head of an important concern, apparently fully recovered.

The point that we learn from these two cases is that the presence of subdural hematoma must always be suspected in cases that show, following the more or less definite story of trauma, progressive headache or other signs of frank neurological disturbance. Of all the cases that can be helped by neurosurgery, these individuals who present subdural collections of fluid give the most gratifying result.

DIAGNOSIS OF TUMOR

In many instances the diagnosis of intracranial tumor demands likewise a sensitization to the possibility that there may be a space consuming lesion.

E. W. (C. G. H. No. 98680), a female of 56, was admitted to the psychiatric service of the

Cincinnati General Hospital on July 11, 1938. She refused to respond when spoken to and the history was obtained from her husband. He recalled that she had begun to be lazy and drowsy a year before, and this condition gradually became worse so that the patient on admission was extremely lethargic and would not talk. Five months prior to admission urinary incontinence was noted at times. Two months before entry she began to talk irrationally, and finally she was brought in to the hospital. Examination showed an unresponsive patient. The fundi could not be seen because of corneal opacities. The right pupil measured 5 mm., the left 3. Extraocular movements were normal. She displayed a mask-like facies, tremulousness of the fingers at rest, intermittent rigidity of the left upper extremity, and an equivocal plantar response on the left. The differential diagnosis lay among cerebral arteriosclerosis, general paresis, and frontal lobe tumor. It proved impossible to make a diagnosis on clinical grounds alone and it was decided to resort to ventriculography in an effort to establish a definite diagnosis. However, the patient developed a furunculosis which gave rise to septicemia. operation could not be carried out and the patient died. At autopsy a tumor was disclosed lying between the frontal lobes anterior to the optic chiasm. The tumor measured 5.5 cm. in anterior posterior direction and 4.5 cm. laterally. Microscopically it was proved to be a very slow-growing meningeal tumor (meningeal fibroblastoma). Its weight was approximately 75 grams.

It is striking that in the clinical history of this patient frank signs of increased intracranial pressure were absent, and the clinical picture was essentially one of mental deterioration.

Another clinical picture of importance is illustrated by the following case history. C. C. (H. H. No. 400055), a woman of 46, was referred by Doctor H. A. Springer. The patient had been following her usual employment until a week before admission to the hospital. However, for some two or three weeks before that time she had been troubled with clonic jerking of the right hand which came on at intervals and which was controlled fairly well by phenobarbital. Approximately a week before admission to the hospital she had a major convulsion, right-sided, and again a day before admission to the hospital she had a convulsive seizure in which for five minutes she repeated a stock phrase. On the morning of admission she had another seizure, following which she was left with an almost complete paralysis of the right arm and leg, and some disturbance of speech. She was referred by her attending physician with a diagnosis of frontal lobe tumor. Neurological examination showed, in addition to the hemiparesis and the slight disturbance of speech, a right Babinski response.

Ventriculography was unsuccessful. A left frontal craniotomy was carried out under local anesthesia and an extensive removal of what was taken to be benign left frontal lobe tumor was carried out. The patient failed to recover consciousness and died 13 days postoperatively. At autopsy it was found that the tissue removed at operation had represented reacting brain lying anterior to the tumor itself, which actually lay in the left motor cortex.

This case is cited because it demonstrates a cardinal fact, convulsions occurring in the mid

and later decades of life must always be suspected of being caused by intracranial tumor. Furthermore this patient demonstrated a slight speech disturbance and this, in a right-handed individual, usually is indicative of a left hemispherical lesion and is of definite localizing value. Finally the case demonstrates how rapidly signs and symptoms may develop in those instances where one is dealing with a relatively rapid growing neoplasm.

COMMENT

This brief presentation, it is hoped, will serve as a reminder of some of the common signs and symptoms which may precede or may be associated with increased intracranial pressure, due to tumor or subdural hematoma. The clinical diagnosis of these conditions depends in large part on the "sensitivity" of the general practitioner who first sees them. There are certain signs and symptoms which should serve to heighten the physician's sensitivity, and a number of these have been cited in the above case reports. Thus headache, particularly when it is progressive in its frequency and severity, and when common causes such as eyestrain have been ruled out, must be regarded with suspicion.

From the third decade on, the occurrence of "strokes" suggests the possibility that one may be dealing not with an ordinary vascular accident on the basis of arteriosclerosis or syphilis, but rather with some form of expanding lesion. A higher incidence of autopsy examination would no doubt reveal a higher incidence of intracranial expanding lesions, either cerebral tumor or subdural hematoma. A very competent physician with a very large practice once told me that he had in 40 years seen but two brain tumors. It is my own belief that he probably saw—and missed—at least two tumors a year in a practice the size of his.

Convulsions which make their appearance after the age of 25 should always arouse suspicion. This is particularly true when the seizures begin with isolated convulsive phenomena or are limited to one side of the body. Such isolated disturbances point to a focal lesion or to a lesion limited in a whole or in great part to one hemisphere.

Mental deterioration, gradual or acute, often presents a difficult differential problem for neurological signs may be lacking and signs of cerebrospinal fluid obstruction may not appear until late in the disease.

In younger children diseases which interfere with the cerebral fluid circulation are prone to cause enlargement of the head. Occasionally such enlargement is the only obvious disturbance, for by expanding the closed box ceases to be in reality a closed box, and it is only when the limits of the

skull's distensibility are reached that frank signs of increased intracranial pressure set in.

The differential diagnosis of many cases of intracranial hypertension taxes to the utmost the diagnostic acumen and skill of the neurologist and neurosurgeon. If the general practitioner will bear in mind the possibility of these conditions and if he will in short be "sensitized" to them, he will have the gratification of recognizing these cases earlier. Roentgenographic studies of the head may show significant calcifications, a shift of the pineal gland, or signs of erosion resulting from pressure. Finally, it should be emphasized that the routine use of the ophthalmoscope is a procedure which carries its own reward.

Once the practitioner's suspicion is aroused, reference of the case to a competent neurologist or neurosurgeon will initiate the train of special investigation, probably including pneumoencephalographic studies, which should eventuate in an accurate diagnosis. Again let me emphasize the truism that the earlier a surgical condition is recognized the better the operative results that will be achieved.

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Erysip'e'oid

There is evidence at the present time that swine erysipelas is on the increase in the United States. Infection of man through the ingestion of food or water contaminated with the *Erysipelothrix* organism apparently does not occur, or is extremely rare. The organism is quite resistive. Boiling is immediately effective, but it will resist drying for a month or more, and in salted and pickled meats it will survive for three or four months. Meloni reports the survival of the organisms for more than eight years in a refrigerator in moldy gelatin, and Stickdorn reports the finding of live and virulent organisms in a broth culture stored for more than seventeen years. Bichloride of mercury 1:1000, phenol in a 5 per cent solution, and formalin in a 2 per cent solution are all effective in destroying *Erysipelothrix* suis within five to fifteen minutes. A precipitin test can be obtained through the use of a suitable immune serum and antigen, and an agglutination test is also of value.

This disease has been generally reported as occurring among butchers, poultry-dressers, fishmongers, housewives, and others handling animal products. Klauder, making an extensive study of the disease in this country reports widespread occurrence among commercial fishermen handling

live fish along the entire Atlantic seacoast. This author in a recent review of 100 cases states that "Infection can invariably be traced to contact with animals, fish, Crustacea, dead matter of plant and animal origin, or matter derived from animals such as hides, pelts, bone, and manure." He reports in this group six cases involving veterinary students "infected when dissecting a dead horse." He also reports unusual sources of infection, e.g.—from the sting of a jellyfish, off a stone in a dried creek, carrying an opossum with its tail wrapped around abraded knuckles, and from the prick of a spine on a dried, stuffed fish mounted as an ornament. Gilchrist reported a famous group of 329 cases in which 323 were caused by crab bites or lesions produced by crabs. Brown reports an infection in himself following the scuffing of a knuckle while cleaning a buffalo skull. Ritchie reports one case from handling fish caught in the Great Lakes, and Lawson has reported 210 cases from cattle bones used in making buttons.

As originally described by Rosenbach, erysipeloid infection occurs, in the majority of instances, following slight traumatic injuries beginning as an attack of cellulitis with an erythematous patch, usually on a finger, spreading slowly and developing characteristically a well-defined, slightly elevated, bluish margin accompanied by intense swelling, itching, pain, and tenderness. Associated lymphangitis and lymphadenitis are not uncommon. The disease may spread from one finger to another until all fingers or a considerable part of the hand is involved. There are usually no constitutional symptoms to speak of, and the disease runs a self-limited course, in most instances, of about three weeks. Recurrences are common and many cases reappear in the same area or in another previously uninvolved area. The incubation period of the disease usually varies from one to four days.—Harold T. Gross, M.D., Manhattan, Kansas; *Jr. of the Kansas Med. Soc.*, Vol. XLII, No. 8, August, 1940.

Dissecting Aneurysm

About 90 per cent die from rupture in the first few hours or days, and the few survivors are likely to be cardiac cripples because of diminished caliber of the aorta, aortic valve incompetence, arteriovenous communication, or other defect.

Liberal use of opiates is in order for pain and restlessness; and blood pressure should be kept constantly as low as possible and tolerable. Erythrol tetranitrate 0.015, if tolerated by the stomach, is desirable for its sustained effect—about four or five hours. Copious venesection seems logical to reduce pressure and blood viscosity and to promote coagulation.—Eugene S. Kilgore, M.D., San Francisco; *Cal. and W. Med.*, Vol. 53, No. 2, August, 1940.

Report of a Case of Splenomegaly and Hepatic Enlargement Apparently Relieved by Injections of Spleen Fluid

GEORGE A. HOKE, M.D.

THE following report concerns a case of moderate splenomegaly with accompanying enlargement of the liver, such as have formerly been considered as Banti's Disease, and more recently classified as portal hypertensive splenomegaly. The prognosis of these cases has been considered to be uniformly bad.

The patient in this case, a 32-year-old white male, a retailer of meats and groceries, presented himself on November 3, 1938, with the complaint of nervousness, weakness, and intermittent attacks of diarrhea, with from three to ten copious watery stools in three or four hours occasionally associated with nausea and vomiting; coincident soreness and pain in the left upper and lower abdominal quadrants. These attacks occurred every three or four days over a period of about two years.

The past history included a questionable attack of gastric ulcer several years before, which, however, could not be verified by X-ray. There had also been several attacks of sharp pain in the epigastrium, lasting a few hours, and accompanied by vomiting. In 1934 one of these attacks suggested perforation of a duodenal ulcer, but X-ray examination a few days later showed a normal stomach and duodenum. A similar attack in November, 1936, accompanied by tenderness and rigidity in the right lower quadrant, resulted in the removal of a chronically diseased appendix.

Physical examination: A nervous white male, height 5 feet, 7 inches, weight 133 pounds, with a peculiar grayish color, and cyanosis of the lips and finger tips. (This peculiar color and cyanosis has been present for several years.) Heart and lungs normal. Blood pressure 120/80. No palpable lymphatic glands. Abdomen slightly distended and tympanitic. Tenderness in the left upper quadrant. The edge of the enlarged and tender spleen was easily palpated and the notch identified. Liver enlarged to percussion, extending two fingers' breadth below the costal margin. Rectal examination negative.

Laboratory findings: Normal urine. RBC 3,500,000; Hb 72. Differential count within normal limits. Red cells normal in color, shape and appearance. Kline test negative. Stool examinations showed traces of occult blood, a few red corpuscles, but no ova, parasites, amoeba. X-rays showed normally functioning stomach and duodenum. The colon was negative, except for an irregularity about the splenic flexure which was interpreted as a pressure deformity from the enlarged spleen.

Course: The patient was placed on a bland, high caloric diet, with five minims of dilute hydrochloric acid before meals, ferrous carbonate and bromide mixture after meals. In spite of improvement in the blood picture, the peculiar gray color, cyanosis of the lips and finger tips, the intermittent attacks of pain, vomiting, and watery

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diarrhea persisted, and the spleen increased slowly in size.

In April, 1939, the patient was carefully rechecked by Dr. Russell Haden, at the Cleveland Clinic, who found an increase in the RBC to 4,700,000 with 87 percent Hb, but could not discover any etiological factor. The stools remained negative, and the weight remained at 133 pounds.

Finally, on May 7, 1939, the patient suffered an extremely severe attack of diarrhea, vomiting and pain in the left upper quadrant, and was admitted to Elyria Memorial Hospital, where on May 8, 1939, an exploratory operation was performed. The spleen was enlarged and firm, six to seven inches in diameter, 2½ inches in thickness, deep purple, and rather firmly adherent to the diaphragm, so that it could not be delivered. The liver was firm, deep purple, both lobes enlarged, the borders extending to three fingers' breadth below the costal margin. There were no enlarged glands, and aside from slight distention of the mesenteric veins, the remainder of the exploration was negative. A diagnosis of second stage Banti's disease was made. Because of the previous complaint of pain in the region of the spleen, and since splenectomy had been reported helpful by some authorities in similar cases, it was decided to remove the spleen. However, before this decision could be acted upon, the patient's condition suddenly became critical, further operative procedure was impossible, and the abdomen was hastily closed.

The postoperative course was stormy, with extreme distention, dyspnea, and threatened shock for the first three days. On the fourth day, there was sudden onset of an intense urticaria, persisting unabated in spite of adrenalin, sedatives, lotions, etc., causing extreme discomfort. After three days, it was recalled that a preparation of spleen fluid had been recommended for certain types of urticaria. Since the patient was suffering from splenic disease, it was decided to make a trial of spleen fluid in his case. Consequently, 2 cc. of the 50 per cent spleen fluid* were given intramuscularly. Within a few hours there was improvement in the urticaria and it was decided to repeat the injection daily. After the third injection, the urticaria had entirely disap-

Submitted April 29, 1940.

*Spleen fluid supplied by Armour & Company.

peared. More striking, was the improvement in the general condition of the patient; his color was better and the cyanosis of the lips and nails was less. Daily 2 cc. injections were, therefore, continued for the next 14 days, and thereafter every second day for a week. By this time the cyanosis had entirely disappeared, and the patient insisted he felt better than he had in two or three years. No further pain, vomiting or diarrhea had occurred. Following this, 5 cc. of the so-called 150 per cent solution were given intramuscularly twice weekly for three weeks, then once weekly for ten weeks, then twice monthly for two months.

The patient's improvement was striking. Cyanosis did not recur, and the ashen color disappeared. He returned to his work after six weeks, at which time the spleen was no longer palpable and the liver dullness had reached to the costal margin. The diarrhea, pain and vomiting did not recur. His weight, which had dropped to 119, after operation, had increased at the end of five months to 148, where it has remained to the present.

COMMENT

In reporting this case, no suggestion is made as to the etiology of the splenomegaly and hepatic enlargement in this patient. The relief of the symptoms seemed to be due to the use of spleen fluid. The case is reported in the hope that further observations will be made elsewhere in similar cases.

538 Broad St.

Infectious Mononucleosis

Infectious mononucleosis is important because of the difficulty of its differentiation from other diseases, particularly those of a more serious nature. For example, because of the high leukocyte count and the peculiar immature cells in the blood it can be easily confused with leukemia and I have seen cases diagnosed as that disease that were actually infectious mononucleosis. It can be confused with agranulocytosis if there is leukopenia, and the hemorrhagic cases may simulate thrombocytopenic purpura. In those instances where there is severe involvement of the throat it must be differentiated from such conditions as Vincent's angina, ordinary follicular tonsillitis, diphtheria, and so forth. Because of the generalized lymphadenopathy, particularly the positive Wassermann reaction in some cases, it must be differentiated carefully from syphilis. All of the diseases characterized by enlarged glands such as Hodgkin's disease, tuberculosis, lymphosarcoma, etc., should be considered.

Those cases showing a rash, of course, may be confused with the ordinary exanthemata. Recently at Emory University we have had a

moderate epidemic among the students of what we have assumed to be German measles. In many of these cases we have found large plasma like Turk cells that are quite similar to those sometimes seen in infectious mononucleosis. All of them have had a mild morbilliform rash and have run a short mild benign course, and in some instances the condition has been mistaken for infectious mononucleosis. If the disease is of long standing it has to be differentiated from the various fevers including typhoid, undulant fever, malaria and other febrile disorders.

COURSE OF TREATMENT

The disease usually lasts about two weeks but there is also variation in this. Some of the milder cases may terminate within a week and others may last for as long as a month and run a febrile course during this time. There is no treatment for infectious mononucleosis that is of specific value and it is symptomatic almost entirely. A great many agents have been used in the disease, particularly in recent years since sulfanilamide and related compounds have been available. Transfusions have been given in some cases and all sorts of medical agents have been employed from time to time. It is questionable if any of these are of any service whatever. The patient should be treated symptomatically, be placed in bed, but should not necessarily be isolated. One should simply realize that the disease will run its course within one, two or three weeks, that the patient usually will have an uneventful convalescence and finally will be quite well with no ill effects of a permanent nature.

In conclusion it is well to bear in mind that infectious mononucleosis is an important disease because of other diseases with which it may be confused and in particular it should not be confused with syphilis. It is virtually impossible to make an accurate diagnosis of this condition by clinical observations alone. The presence of the highly typical circulating infectious mononucleosis cells, plus the positive heterophile antibody test is almost absolute assurance of the presence of the disease and diagnosis cannot be established unless these procedures are carried out.—Roy R. Kracke, M.D., Emory University, Ga.; Texas St. Jr. of Med., Vol. XXXVI, No. 5, September, 1940.

Figures on Polio

From January 1 to September 20, 1940, there were 292 cases of poliomyelitis reported to the State Department of Health, compared with 81 for the same period last year. So far there have been 23 deaths this year. During the entire year 1939, there were 157 cases reported, and 9 deaths. In 1938 there were 55 cases and 19 deaths and in 1937, 533 cases and 55 deaths.

Some Errors and Misconceptions in Clinical Endocrinology

A. G. SAR-LOUIS, M.D., M.Sc. (Med.)

A GERMAN author¹ has likened the functions and interrelationships of an endocrine gland to the interplay of the musicians in a symphony orchestra. Each member's part is so delicately coordinated with his fellows that the combined effect is one of harmonious unity. Just as it takes a master musician to analyze the part played by the individual and its relation to the whole, so does it require the skill of an expert clinician to establish the fundamental pathology of an endocrinopathy. Our analogy becomes dissimilar at this point. We do not know all the functions of the several glands nor their exact effects upon each other. Endocrinopathies represent disturbed equilibrium where their effects and symptomatology are never uniglandular. The type and site of the pathological lesion introduces the multiple factors of hyperfunction, hypofunction, or complete alteration in the character of the hormone. It is sometimes difficult to distinguish between cause and effect, so that diagnosis is difficult, and resulting treatment and conclusions drawn often erroneous.

PITUITARY CACHEXIA AND ANOREXIA NERVOSA

An illustration of this point may be seen when we go over the literature of the two syndromes, pituitary cachexia or Simmond's disease and anorexia nervosa. Here we have two diseases with the same glandular and mental symptoms. In pituitary cachexia, however, the glandular disturbance, caused by a destructive lesion of the anterior pituitary, is primary and the mental symptoms are the effect; whereas in anorexia nervosa the mental disturbance is primary with a resulting pluriglandular failure. Thus, unless the cause and effect are clearly distinguishable, an erroneous diagnosis will be made. Pituitary cachexia can only be conclusively diagnosed at autopsy and, up to the present time, is incurable. Anorexia nervosa, on the other hand, is, to a varying degree, amenable to treatment. The reports in the literature of "pituitary cachexia with cure" rightfully belong in the category of "anorexia nervosa with cure".

These two syndromes are worthy of our interest for yet another reason. They so clearly show that a relationship exists between the endocrine system and the central nervous system. The seat of this cooperation between the glandular and nervous mechanism is probably the hypothalamus. It is believed that the hypothalamus controls the production of hormones and their release from the respective glands, and that it also controls

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the response on the part of tissues and organs. Lichtwitz² illustrates this with an example of hypothalamic diabetes, a form not relieved by insulin administration. Today we have great hopes for the use of hormones in the treatment of mental diseases. Schizophrenia is already being treated with testosterone, and estrogen therapy may prove to be of value in the treatment of involutional melancholia.

Another reason for the difficulty experienced in the diagnosis of endocrinopathies is the fact that the same symptom may have one of many sites of origin. Thus, amenorrhea may be the result of either pituitary, thyroid, adrenal or ovarian dysfunction. It also often occurs in many neuroses and psychoneuroses, as well as in anemia, under-nutritional states, and tuberculosis.

Masculinity in the female is another symptom which may have many points of origin. It may result from certain adrenal cortical tumors, or it may be due to several varieties of ovarian tumors. Among such types of tumors is, first, a variety described by Robert Meyer in which the cellular structure is arranged in cords. The entire architecture of these tumors resembles the testicle. They are called arrhenoblastomata. Second, are tumors resembling luteomata. These have large lipid containing cells and may represent adrenal rests. A third variety is one that has the typical cellular structure of a granulosa cell tumor. In most instances this tumor has a feminizing effect, but in this case its effects are masculinizing. This illustrates the failures experienced when attempting to correlate physiological and biochemical alterations with morphological changes. Masculinization may also be the result of a pituitary tumor, or it may be seen where no demonstrable pathology exists in any organ.

Besides the difficulty of diagnosing endocrinopathies, there are many widespread misconceptions which retard the progress of clinical endocrinology. Many of these misconceptions are the result of erroneous claims made by some pharmaceutical houses. Chief among these is the fallacy that amenorrhea and genital hypoplasia

¹Read before the East Cleveland Clinical Club, Cleveland, Ohio, February 23, 1940.

require estrogen therapy. It is true that estrogen administration stimulates the growth of the uterus and breasts. Its periodic withdrawal may even bring about uterine bleeding which simulates normal menstruation. These growth effects, however, last only as long as it is given, and regression to the former state takes place immediately when it is stopped. These transient results are hardly commensurate with the cost of treatment. More important than cost, however, is the effect on the ovary. Investigators are in agreement that estrogens depress the gonadotropic activity of the anterior pituitary gland. If the total dosage is sufficiently large, this depressing effect may be equivalent to castration. This action of estrogen on the ovary is homologous to that of the androgens on the testicle. Testosterone increases the secondary male characteristics, including potentia, but depresses spermatogenesis. Moore and Price³ and many other investigators have shown that testosterone produces grave injuries to the testes of normal young male rats.

At the most recent Academy of Medicine Fortnight in New York a well known clinic presented cases of amenorrhea with breast hypoplasia. Slides showing the breasts before treatment were compared with slides showing the results of estrogen injections. The clinic chief admitted that regression of these breasts took place as soon as treatment was discontinued, but justified its use by the improvement in the girl's mental state. This justification was made, regardless of brevity of action and costs; in spite of the fact that spontaneous improvement without treatment often takes place, and apparently without considering the possibility that there might be permanent suppression of ovarian activity. Novak,⁴ in discussing this matter, states that "the labored defense of the widespread vogue of estrogenic therapy in endocrinopathic amenorrhea exposes the fact that in this field clinicians are still floundering, their only excuse being that, having patients to treat, they must try to do the best they can with present day knowledge and preparations". Summarizing, we feel that the advocates of estrogen therapy for amenorrhea and genital hypoplasia have not proved their point or justified the procedure.

OTHER FORMS OF THERAPY

It may be well to digress here and speak of other forms of therapy used in this condition. Some clinics treat ovarian underfunction with stimulating doses of X-ray to the pituitary and ovaries, but this therapy is as yet not generally accepted. Pituitary gonadotropic substances so far produced are, for the most part, disappointing, although Campbell and Severinghaus⁵ and Payne and Shelton⁶ report favorable results with prolonged treatment and sufficient dosage. The status of pregnant mare's serum is still in doubt despite a few optimistic reports. Hart-

man⁷ in his work on monkeys has shown some of the uncontrollable factors which may be encountered in the human female. Most clinicians are agreed that thyroid substance is valuable in the treatment of menstrual disturbances. It is also of value in certain amenorrhea and sterility cases.

An ideal form of treatment for cases of amenorrhea and genital hypoplasia would be an agent which would stimulate the pituitary to increased secretion of the gonadotropic factor, which in turn would bring about normal function in the uterus and breasts by increased production of the patient's own ovarian hormones. In searching for this agent we should not lose sight of certain facts that physicians of former years well recognized, but probably improperly explained. For instance, marriage was advised by these physicians for cases of menstrual disturbances because they recognized that it had a beneficial effect. They also used the stem pessary as a treatment for sterility. Although this therapy is looked upon today with disfavor because of the distressing complications that ensued, the pronounced effect which it had on uterine development and fertility is universally recognized. We know that cervical dilatation will relieve many cases of dysmenorrhea and other menstrual disorders. We have often observed pregnancy following immediately upon the passage of a sound or uterine cannula incidental to carrying out an insufflation test. Some prominent clinicians, including Anspach, carried out pelvic massage in the treatment of hypoplastic states with excellent results.

The foregoing are all forms of cervical stimulation, and the beneficial effects derived from it were always explained on a mechanical basis. This would seem to be too simple an explanation and does not fit in with the facts that we have learned in the laboratory. In one species the manner in which a cervical stimulus acts, and even the nervous pathway over which the stimulus travels, has been demonstrated. The rabbit does not ovulate until mating takes place. Cervical stimulation with a glass rod also causes ovulation to occur. This stimulation, however, will not be effectual in animals whose cervical sympathetic nerves are cut. Thus, in the rabbit cervical stimulation initiates a nerve impulse which is carried to the brain via the sympathetic chain. This impulse affects the anterior pituitary in a manner to increase its gonadotropic hormone. The ovary, under this influence, liberates its ova and produces corpora lutea. The hormone from the corpora lutea brings about the progestational or nidatory effects in the uterus. In view of these facts, we think that cervical stimulation in women may also initiate a nerve impulse to the anterior pituitary which in turn stimulates the ovary. This, it would seem, is a more likely explanation of the beneficial effects

observed from coitus, pelvic massage, dilatation of the cervix, and insertion of a pessary or a cannula. Carefully controlled clinical research coupled with laboratory tests such as endometrial biopsies, cervico-uterine ratio measurements,

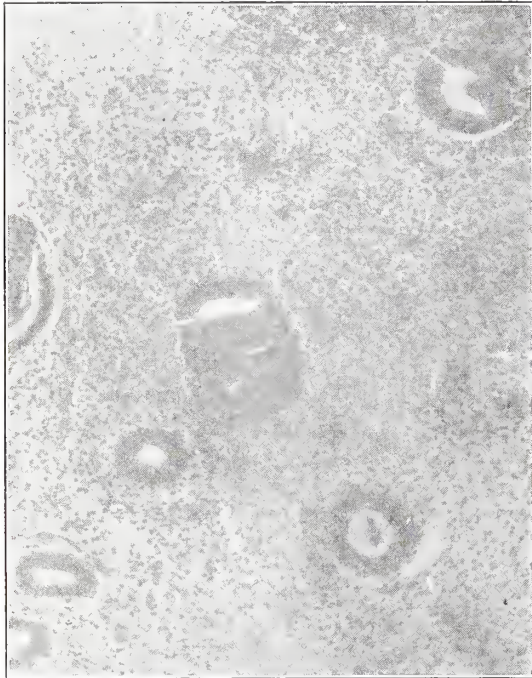


Fig. 1. Atrophic endometrium obtained by biopsy before treatment was begun. Uterus measured four cms. (inner fundal wall to external os).

vaginal pH, and hormone assays, taken before and after cervical dilatation, might tell an interesting story.

For the past four years it has been our good fortune to be able to follow the course of a young woman, 24 years of age, who showed all the symptoms common to either pituitary cachexia or anorexia nervosa. She had marked emaciation, anorexia, weakness, apokamnosis, hypothermia, hypotonus, flat sugar tolerance curve with insulin sensitivity, and a basal metabolism rate of minus 36. Along with these manifestations she had mental symptoms and an amenorrhea of 18 months standing. The uterus measured only four centimeters in length, and an endometrial biopsy at that time showed an atrophic endometrium (Fig. 1). This girl was treated with large daily doses of crude pituitary extract plus anterior pituitary-like substance (A.P.E. plus A.P.L.). From time to time endometrial biopsies were taken which showed gradual improvement. The endometrium, which at the first biopsy was meager and difficult to obtain, became abundant, and microscopically showed the same progressive development that one sees in a normal cycle. Complete normalcy was established by obtaining a late differentiative type of

endometrium (Fig. 2) and a uterine enlargement to eight centimeters in length. Additional proof was had by a pregnancy which followed.

Whether this improvement was the result of hormone medication; whether it would have occurred spontaneously as a result of improvement in this girl's own hormone supply, or whether it was the result of the stimulating effect of cervical dilatation is difficult to say. Pituitary hormone therapy has yet to prove itself beneficial. It has never been satisfactorily shown that A.P.E. or A.P.L., or both combined have any stimulating effects on the ovaries in the human. As for spontaneous improvement in this case, it is rather improbable since the disease was of long standing, and improvement began only after treatment was instituted. It is quite possible that the cervical dilatation resulting from repeated biopsies stimulated this girl's pituitary gland to increase its output of gonadotropic hormone, thus bringing about increased ovarian function, ovulation, corpus luteum formation, a secretory endometrium, and pregnancy.

Another popular misconception is the one that frigidity is amenable to estrogen treatment. It

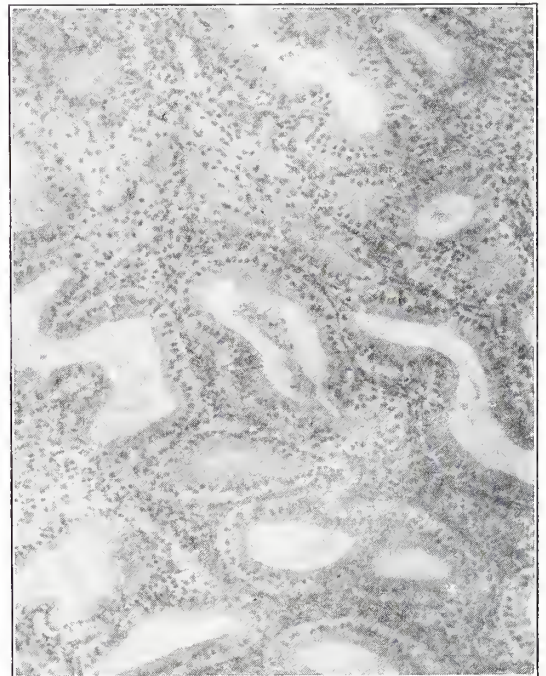


Fig. 2. Late differentiative endometrium obtained by biopsy after eight months of treatment. Frequent biopsies in this eight month interval showed progressive development. Uterus at this time measured eight cms.

has been assumed that the sex hormones initiate the sex impulse. Once initiated, however, this impulse persists even after castration. That ovarian activity is in no way a measure of the libido is also shown by the fact that normal women of high fertility may be entirely frigid. On the other hand, women with hypoplastic geni-

talia may be nymphomaniacs. The major influences on sexual impulses are mental and emotional. Estrogen administration, except possibly by suggestion, has no effect upon this impulse. Even in the menopausal state where estrogen therapy does sometimes help the falling off of sex desires, it does so because it restores the mental and emotional disturbances of this syndrome to their normal state.

Despite advances in the endocrine field, there still exists among practicing physicians the idea that a rhythmic menstrual flow establishes normalcy. This is, of course, false. There are women who give a history of periodic menstrual bleeding, who may show no abnormalities on physical examination, and yet do not ovulate. These cases can only be found by doing premenstrual endometrial biopsies. The absence of secretory activity on the part of the glands at this time is indicative of an absence of corpus luteum formation and ovulation. In this connection it is also well to keep in mind the fact that normal women may occasionally skip an ovulation. It may also be true that ovulation may occur oftener than every 28 days, or there may be several ovulations during a menstrual cycle. These facts demonstrate the inconclusiveness of a single biopsy, and the value of repeated tests. The importance of all these facts is obvious in sterility studies.

In talking with physicians one is made aware of the fact that many of them believe that large doses of hormones can be used with impunity as a trial and error method. This is a misconception. It must be remembered that the newer extracts and synthetics are potent preparations that produce widespread and profound alterations in both function and structure. Their effects are frequently discernible only in time and with difficulty. We have seen mutilating operations that were probably the result of indiscriminate and prolonged hormone administration. There is good reason to believe that ovarian cysts may be the result of just such therapy.

Up to now we have considered a few of the many misconceptions pertaining to endocrinology, but no discussion is complete without referring to the very popular view that the husband is not often the cause of sterility, or that the finding of a few motile spermatazoa in his semen is assurance of his fertility. Sterility studies have shown that the male is solely at fault in about 40 percent of the cases. For this reason no operative work or examinations entailing risk, such as biopsies, insufflation tests or utero-salpingograms, should be done on the female until a satisfactory seminal examination is made, and the male is excluded as a cause of the sterility. Semen is best collected in a wide mouthed bottle instead of a condom, and can be kept at ordinary room temperature until examined. Spermatazoa remain active for from nine to thirteen hours under

these conditions. Examination of the specimen should consist in measurement of total volume, viscosity and motility. The latter is reported as zero to four plus. A total count is made which may range from zero to eight-five million per cubic centimeter, the average being fifty million per cubic centimeter. There is little hope of fertility where the total count is less than twenty-nine million. A differential count is also made which gives the percentage of immature or abnormal forms to the normal ones. Fertility is doubtful if abnormal forms are 25 percent or more.

SUMMARY AND CONCLUSIONS

The difficulty of distinguishing between cause and effect is illustrated by the fact that many cases of "pituitary cachexia with cure" are reported in the literature. These cases rightfully belong in the category of "anorexia nervosa".

The use of large doses of estrogens in the treatment of amenorrhea, genital and breast hypoplasia is contraindicated. The same is true for testosterone in the treatment of oligospermia and azoospermia.

Considerable clinical evidence exists for the belief that repeated cervical dilatation stimulates the gonadotropic activity of the anterior pituitary gland. The value of this procedure might be scientifically established by doing endometrial biopsies, cervico-uterine ratio measurements, vaginal pH, and hormone assays, before and after cervical dilatation.

A case of amenorrhea with a small uterus and an atrophic endometrium is presented. Under treatment with anterior pituitary extract plus chorionic gonadotrophin (A.P.E. plus A.P.L.) the uterus developed to normal size with a progestational endometrium. Pregnancy followed. The question is raised whether improvement would have occurred spontaneously, whether it resulted from the gonadotropic substances, or whether it was simply the result of the stimulative effects on the patient's pituitary gland from repeated cervical dilatation. The latter explanation is thought to be the best.

Estrogens are of no value in the treatment of sexual apathy.

It is dangerous to use potent endocrine products as a trial and error method.

An adequate seminal examination is outlined, and the male factor in sterility is discussed.

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Acute Chest Conditions in Children

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ACUTE chest conditions in children obviously could include not only lesions of the lungs, bronchi and pleura but might also be extended to include acute disease of the heart, pericardium, great vessels, thymus and diaphragm. However, because of the fact that the central cardio-vascular system in itself might well engross the full time and space to be devoted to comment of this type these remarks shall be restricted to the respiratory organs and their diseases of acute character.

Any one actively engaged in the general practice of medicine realizes what a large portion of their work and an equally large part of childhood disability is found in the field of acute respiratory infections. It is not possible to accurately say that any given patient has simply a coryza or a pharyngitis or an otitis media. Careful observations will almost invariably show a much wider extent of respiratory infections than to one single area.

However, there is one group of respiratory conditions almost entirely unrelated to infection in the patient and this is to be found in the newborn. Although these are of vast importance to the parents and the physician as well, we shall merely mention them in passing. It is rather universally recognized that the presence of extensive, easily demonstrable atelectasis in the newborn infant is almost always associated with some degree of central nervous system damage. It has been our own experience that X-ray evidence rarely is as extensive as that presenting itself at the postmortem table. The treatment of this condition is very unsatisfactory and depends entirely upon the degree of progression of the underlying brain damage. Some confusion may be experienced in differentiating the pneumonia-like chest conditions observed following prolonged labors where attempts at intra-uterine inspiratory efforts have certainly taken place resulting in the filling of certain lung cells with amniotic material.

Before going on to discuss some of the present-day aspects of respiratory diseases as related to the thoracic organs it would not be out of place to review some of the deviations from the adult standards of physical findings that are entirely peculiar to the chest of the young.

Any disease that is accompanied by considerable elevation of body temperature provokes an

abnormal speeding of respiration with frequently an expiratory grunt. Because of the preponderance of diaphragmatic respiratory activity the accessory muscles of respiration may early be called upon for unusual activity even in the absence of serious obstruction to the inflow and outflow of tidal air.

The position of the small patient may alter immensely the percussion findings in the chest. Even the presence of a distended abdomen may give signs of increased density at the base. If the chest is percussed, with the child on its abdomen, with the head turned to one side, dullness is likely to be elicited in the opposite apex. The ideal position in which to elicit reliable signs, is with the child held upright over the shoulder of the nurse of assisting adult. Normally exaggerated breath sounds of a more bronchial character are heard posteriorly over the left base and anteriorly over the right apex.

ASTHMATIC BRONCHITIS

In the early stages of some lung infections there may be suppressed breath sounds either because of local bronchial plugging or because of the guarding of the excursion of inspiration in the presence of pain. The presence of toxic liver enlargement in pneumonic lesions may also mislead one in the determination of the location of basal dullness.

Associated with upper respiratory infections and very frequently of distressing although more often not serious interest, is the entity of so-called asthmatic bronchitis which has an individual incidence although not often lasting longer than through the twelfth year of life. The usual story is that the given patient has a head cold without fever, followed at the end of 24 to 48 hours by acute respiratory distress with irritative cough and obstructed inspiration and expiration. Physical findings are similar to those observed in acute bronchial asthma with this difference, that more often in this condition there appears within 36 hours, many coarse moist rales and rhonci more numerous at the bases. This distressing situation has all the earmarks of an allergic state and its temporary response to adrenalin is rather good, here the inhalation method of administration of the 1:100 solution being more desirable. The prospect of its recurrence with each fresh "head cold" is not a happy one. The experience of many has shown that long term prophylactic treatment in the form of vaccine therapy from the beginning to

Dr. Taggart was selected to write an editorial summary on the above topic by a committee of ten leading Ohio pediatricians.

the end of the usual cold season will eliminate at least 80 per cent of such attacks. The use of autogenous vaccines has had first call but many have experienced favorable response from the use of stock catarrhalis vaccines with or without preliminary skin testing. The period of vaccine use ordinarily extends from September to May.

LOBAR PNEUMONIAS

Even at this late date, there are several pediatric textbooks which seem not to recognize the frequency with which lobar pneumonias are encountered in the care of even infants. You are all quite familiar with the fact that the emergence of sulfapyradine as a near specific treatment for pneumococcus infection has very much changed the complexion of the treatment of lobar pneumonias in adults. This is equally true in the care of this condition in infants and children. There was formerly very great additional difficulty in the use of the improved anti-pneumococcal sera which has been relatively recently eliminated, because of the tremendous dissimilarity observed in the infecting organisms observed in children as compared with adults. Since the introduction of sulfapyradine however, there has grown up a tremendous literature concerning its use as a specific, as a preventive of complications in treatment of the pneumonia and also of the complications which may have already appeared. As a prophylactic where it is feared that pneumonia is likely to develop, this drug seems to have little practical value. In the field of treatment, it apparently makes very little difference what type of organism is involved, the results are uniformly good.

Many similar reports of which that of Dr. Charles Hendee Smith is typical, suggest these optimistic conclusions. Eight out of nine will give a normal temperature response within the first 24 to 48 hours. With the first critical drop of temperature it is not necessary to continue the drug in a tapering off process, although the attending physician may feel that he is avoiding possible secondary rises in fever if a reduced dosage is continued through the first 24 hours of normal temperature. Secondary spikes of fever may occur but are of merely incidental interest. If responses from the drug are not obtained within the first 24 hours, the secondary administration of serum for the determined type of pneumococcus involved is indicated. Practice, however, would lead you to believe that either some complication is present, or that the pneumococcus is not involved in the infection if favorable response is not observed within the first 36 hours of drug therapy. Practice also would lead you to believe that the kidney complications of sulfapyradine use are not as likely to appear as some observers would have us believe. Most often it is long administration or over-dosage that is

responsible for the injury due to precipitation of crystals in tubules, ureters, or bladder. The usual schedule of dosage employed consists in the administration of 1 or 1½ grains per pound of body weight in the first 24 hours with not exceeding one grain per pound during the second 24 hours. The incidence of nausea is a matter of interest but is exceptionally often seen where the intravenous use of the sodium salt is employed and would thus suggest that the nauseating action is more than likely a central one. The rectal administration of the sodium salt which is very alkaline has a limited use, as it is possible in the majority of cases to give the medication by mouth. The most effective level of sulfapyradine in the blood is not accurately known as prompt responses have been observed where the drug level varied as widely as 1.5 to 8 mg. per cent.

In spite of the splendid assistance that the advent of sulfapyradine therapy has given in the treatment of pneumococcus infections, it is unwise to entirely lose sight of the advantages of other supplementary methods of treatment. In this group comes the use of small frequently repeated transfusions where prostration is severe or where there is definite lowering of red cells or hemoglobin. Especially is this valuable in the complications of the pneumonias such as empyema.

The efficacy of drug therapy in the bronchopneumonic lesions of the lungs is not as firmly established as the same type of treatment in lobar lesions. This is not surprising when we recall that sulfapyradine is more effective against the pneumococcus and that many of the other pneumonic lesions may have the streptococcus as the offending organism. Physical signs in broncho-pneumonia are quite variable and frequently it is difficult to be dogmatic on the basis of simply clinical findings alone. Here X-ray evidence is of immense value. The classical physical findings certainly would be those of isolated small areas of increased pitch breath sounds, associated with crepitant or subcrepitant rales with intervening areas where coarse bronchial rales or rhonci are numerous. Certain numbers of these so-called broncho-pneumonias may become chronic in duration with, in certain instances, some resulting fibrosis but generally almost complete recovery supervenes.

LIPOID PNEUMONIAS

A considerable amount of interest has been focused during the past few years on the lipoid pneumonias, which are practically always reported as occurring among weak undernourished infants in whom the swallowing responses are feeble and who give histories of protracted use of nose drops containing oil or a history of forced administration of some cod liver oil preparation. Among vigorous infants and children this

entity is most unlikely to occur; however, it has become our practice to employ under no circumstances, oil-containing nasal medications.

There are several unusual infecting organisms, in point of frequency, which must be kept in mind to be detected early. Most prominent among these would be so-called Vincent's organisms and actinomyces. The presence of gingivitis or the early appearance of foul acrid breath odor or prune juice-like sputum should lead to investigation of the possible presence of a spirochetosis of the lungs. Here, of course, the arsphenamines are generally of immense value.

The occurrence of fresh or added temperature elevations or increased respiratory distress in a patient already known to have pulmonary disease should suggest the possibility of the development of an empyema. If in addition dullness localized in character becomes evident with increased fullness of intercostal spaces and dry non-productive cough should more than make one suspicious. Here again a deviation from average adult physical findings may be confusing. In many instances breath sounds may be loud and high pitched over a large effusion. The only safe rule to be followed is that if flatness is present diagnostic thoracentesis should be carefully done. It is wise to allow time for pus to become thicker unless compression of the lung and mediastinum embarrasses respiration, then partial tapping is to be repeated. The eventual outcome in the final analysis depends entirely on adequate drainage whether that is accomplished by closed or open drainage.

We have purposely omitted any detailed consideration of tuberculous lesions in these remarks as the whole subject of tuberculosis in infancy or childhood is of long term importance. In passing we might observe that hyper-resonance of the chest is commonly observed in miliary tuberculosis and also that epituberculous lesions may often be confused with unresolved (so-called), pneumonias.

In summary we might conclude that the one outstanding contribution to our information and therapy in the field of acute chest conditions in children lies in the field of drug therapy of the pneumonias. Our knowledge and technique in this direction will undoubtedly be enlarged and refined before many more years come and go.

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There is no such thing as Mexican, White or Negro tuberculosis. The infection is passed from one race to another. No matter what his race, a person with tuberculosis is, first of all a human being, and, next a potential spreader of the trouble to others in the community.—Health Crusader, Apr., 1940.

Chronic Otorrhea

The management of chronic otorrhea is most often a difficult task and not infrequently taxes every bit of ingenuity at our command. The Pharmacopoeia, N.N.R. and books on therapeutics devote quite a bit of space to the drugs useful in the treatment of chronic otorrhea, and recently sulfanilamide and related compounds have been credited with the magic power of a cure-all, including chronic otorrhea. Yet, when we pause for a moment and take an honest inventory of the results obtained we realize how little we can boast of them.

The degree of success we may expect in the treatment of chronic otorrhea is dependent upon the status quo of the condition when treatment is instituted. As stated above much can be done for the patient when early and energetic treatment is undertaken. Under such circumstances the condition is still amenable to medical treatment, and a fair amount of success can be expected. At this stage, however, the disease is mild and devoid of distressing subjective symptoms, and consequently it is given but casual consideration by both patient and physician.

In the advanced case, however, very little hope can be pinned on medical treatment, since the pathology may be quite advanced, and the attic, antrum and mastoid may be involved also. At this stage the patient is in danger, since an acute exacerbation may result in one or more of the serious complications. When careful and diligent treatment with conservative measures has failed, a mastoidectomy is in order, since this will establish proper drainage and render the patient reasonably immune to the serious complications that may otherwise set in.

One important fact to remember is that chronic otorrhea takes origin most often in the nose or throat, and infection in these parts if untreated will prolong, if not perpetuate, the disease. In the attempt to eradicate a discharge from the middle ear one must also treat a blocked eustachian tube, diseased tonsils and adenoids and infected sinuses, as well as boost the general resistance of the patient. Irrigation of the external canal and instillation of antiseptic power per se will not suffice and will seldom produce a cure.

Chronic otorrhea assumes a far more serious aspect when we consider the grave complications, those threatening the life of the patient, that may attend it, especially in an acute exacerbation of the chronic condition.—Joel N. Novick, M.D., Washington, D. C.; Medical Annals of District of Columbia, Vol. IX, No. 8, August, 1940.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed
by Component Society, the Ohio Public Health Association

SUBJUGATION OF TUBERCULOSIS

ONE of the great achievements of the Twentieth Century will be the subjugation of tuberculosis. We are far enough along in the campaign that started when the National Tuberculosis Association was organized 36 years ago to be quite certain that eventually victory will be won. We must not be too complaisant, however, as we are dealing with a very resourceful opponent who will take advantage of any weakening of our defenses to make a counter attack.

In the early days of the Association the stress was put upon treatment, later on prevention, then on health education and on case-finding—these four together with research make up the forces that under one coordinated command are now in the field doing valiant work against the disease. Much has been accomplished. The death rate has dropped 76 per cent in 40 years. We must not be content with what has been accomplished. We have far to go before our objective is gained. Sixty thousand lives a year even now are taken by the tubercle bacillus.

The tuberculosis mortality dropped 33 per cent and 32 per cent respectively in the last two decades. Let us assume, therefore, this average decline of approximately one-third every 10 years can be maintained. In that event, the tuberculosis death rate would be 32 in 1950, 21 in 1960, 14 in 1970, and 40 years from now in 1980 a rate of 9 or 10 may be anticipated. The bells that ring in the year 2000 may sound the death knell of the tubercle bacillus.

The federal department of agriculture has led the way in a successful campaign to eradicate bovine tuberculosis. The success of the agriculturists is due to their persistence along one line—a direct attack on the bacillus and giving no quarter, although this involves the destruction of the host.

Our problem is more complex. We can search out the bacillus but when found we cannot destroy the carrier. We must temporize, we must educate and by slower methods of prevention try to protect others. We attempt to cure, often succeed, and so do much to limit the spread of infection. The slaughter of human beings on the pretext of affording them protection is deemed illegal, and outside of modern warfare that measure is barred. The substitute is segregation in institutions. My plea, therefore, is for more beds—one for every tuberculosis patient who should have one.

The number of beds needed in a state or community can be computed quite accurately by multiplying the number of annual deaths by 10 and dividing the result by four. There are 10 active cases of tuberculosis for each death and 25 per cent of them need and will accept institutional care. This has been the experience where good case-finding programs are carried out and well conducted institutions are available to the patients.

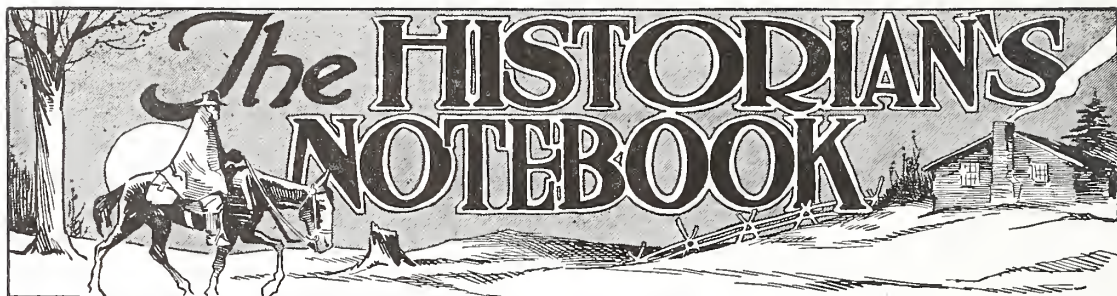
Applying our formula to the United States to find the number of active cases of tuberculosis, we multiply the 60,000 deaths by 10 and the result is 600,000 which is approximately correct. The 25 per cent that will accept and need hospitalization would require 150,000 beds. There are now but 90,000, which means that 60,000 more beds are needed to provide a full complement.

Many additional beds for tuberculosis patients placed where most needed should be the No. 1 item on our agenda. Health education as it applies to tuberculosis is item No. 2. So familiar to us are these matters of what ought to be common knowledge that we deceive ourselves and erroneously believe that our teaching has accomplished its purpose and that the people as a whole are well informed. We must not jeopardize our favorable position through over-confidence. With the weapons now at our command wielded by the agencies now in the field working in close harmony we may expect continued progress toward our goal.

The ultimate surrender of the tubercle bacillus, however, is two generations away unless new developments in treatment come to our aid. This may be brought about more quickly by discoveries made in the fields of chemotherapy and nutrition. Research in both of these fields is yielding rich returns.

While the chemists of various types and interests are delving in their laboratories, we plodders in the broad fields of physics and education must continue to use the methods that have proven sound and true. Yet we must be alert and responsive as new procedures are developed, change our tactics if necessary, and vary our course to keep pace with the changing times.

With all the research work being carried on, sooner or later a discovery should be made that will revolutionize the treatment of tuberculosis. I have faith that this will come to pass.—Presidential Address by Henry D. Chadwick, M.D., Thirty-sixth Annual Meeting of the National Tuberculosis Association, Cleveland, Ohio, June 3-6, 1940.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

The Old Charm of the Mad Stone With Special Reference To the Famous Stone of Cleves

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IT is always very interesting, and occasionally very instructive, to listen to Old Wives' Tales.

Some of the most fascinating of these tradition laden stories are those of the magic powers of stones. Of course the precious stones have been more popular in history and literature. However, simple, commonplace stones were also made famous because certain of these were said to cure people bitten by mad dogs, venomous snakes and dangerous insects. These magic stones were called Mad Stones and Snake Stones.

Legends of the Mad Stones are ancient and widespread. Abbe Grosier¹ is said to have mentioned the use of the serpent stone for snake bites in China during the T'Ang Dynasty. This was in the Seventh Century. In 1248 Ibn Baithar² wrote of the power of stones of attracting the poison of venomous animals. Italian and Portuguese sailors early in the Eighteenth Century spoke with awe of the properties of the Pietra di Cobra³ said to have come actually from the heads of serpents. Many years later the great Michael Faraday⁴ did a chemical analysis of one of these Indian Snake Stones. Stories about these stones have also grown up with our own country. White⁵ wrote of a stone used supposedly in 1654 in New England during the Puritan times. In 1801 Dr. Samuel Davis⁶ of Petersburg, Virginia, wrote a letter to Dr. Benjamin Rush describing a Mad Stone. The stone, yellow with many black pores, light, was wrapped in printed paper which declared "Francis To-res, a native of France is in possession of a chemical preparation called a Chinese Snake Stone, which will extract poison of the bites of snakes, spiders, and of a mad dog

and will cure cancers, which are sold at half a Guinea for the same and a Guinea for the large one". This was dated Charleston, S. C., 1740. Many of the popular stones used in this country were given to the white folks by grateful Indians. This was true of the Indiana Stone described by Elizabeth Hayward⁷ and is also true of the Cleves Stone. One of the stones in the collection of the Smithsonian Institute was secured from an Apache Indian in New Mexico. Early in the 1900's stories continued to appear from India and from the near East about these marvelous stones. Hervey⁸ reported in 1900 that when he was stung by fish spines while bathing in the old Straits of Singapore, a Malay constable used a Snake Stone to relieve the sting.

Even today in America, there are occasional stories of the magic power of stones which have been passed on as jealously guarded family heirlooms. Reports of the success of these stones have spread beyond the confines of the select family circles and have come into public view especially through the newspapers. Hayward,⁷ who has written recently of Mad Stones and traced some interesting ones in Indiana, reported that in 1933, a Tennessee paper carried an ad offering one for sale. In September, 1939, *The Kentucky Post*⁹ had a story of the Boone County Mad Stone now kept in the vault of the Burlington Bank.

Evidently experience and reputation are the main characteristics which transmutes a simple stone into a Mad Stone. The most popular and perhaps the most common forms have been concretionary calculi, especially bezoars from the gullet of deers. White⁵ examined ones of this type and found it chiefly tricalcium phosphate. Next follow such porous stones as sand stones

Much thanks are due to Mr. Charles Friedman of Cincinnati for his great and tireless interest in the folklore of Southern Ohio and his actual tracing of the Cleves Mad Stone.

and those of rotten flint. Among the excellent collection at the Smithsonian Institute is a pebble of calcium carbonate; another specimen is a highly polished seed of the *Gymnocladus dioica*, Kentucky coffee tree. This originally was offered to the Institute for the modest sum of \$1000 in 1900. Some of the jet black Snake Stones of India were probably bits of cremated bone. Michael Faraday¹ analyzed an Indian Snake Stone given to him by Sir J. E. Tennent and he reported it to be a fragment of calcined bone which after calcining had been filled with blood and again charred. One stone, examined by medical authorities,³ was suspected of being a bit of horn.

Since these stones work only with bites of venomous snakes and stings of dangerous insects and bites of rabid animals, they are therefore valuable diagnostic aids, a veritable diagnosis *ex juvantibus*. The technic of application does vary a bit especially with the Cleves Stone, but apparently the usual procedure is to soak the stone in warm water or milk and apply directly to the bite. In some routines, the bite itself is moistened first with water. The Burlington Stone is applied to a small cut made over the bite. Others specify just "in the neighborhood of the bite". If the bite is benign, the stone disdainfully drops off and no amount of persuasion will make it adhere. If the bite is serious, i.e., rabid, the stone will adhere closely for some hours. Then the stone is heated or boiled in water or milk

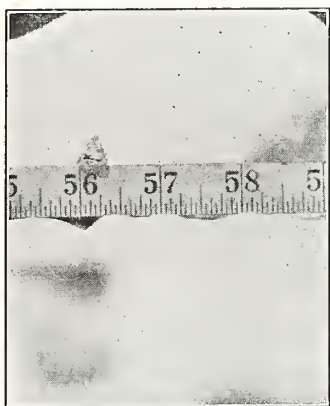


Fig. 1. The Cleves Mad Stone.

and may be applied again and again until it no longer adheres. Some insist that the fluid in which the poison laden stone is heated changes color, turns blue, and may of itself become toxic. Pitchford and Pitchford⁴ and White⁵ however found no such colorful changes when the stones were dropped into milk. It is very difficult to reconcile this property of "selective adherence" with the fact that one is supposed to be able to detect a false stone from a true stone by the fact

that a true stone will stick to the tongue. This laboratory aid has been described for the *Pietra di Cobra*. It has been reported, supposedly for very selfish or for very influential personages, the stone may be pulverized and drunk, quite in the manner of the medieval medical use of some precious stones.

As one would expect, such therapeutic aids would be used for many things outside of bites.



Fig. 2. The Old Lancet Used to Puncture the Skin Before the Application of the Stone.

And so these stones have been recommended for almost every type of skin sore, including draining bubos and cancers.

In the days before the Pasteur treatment for hydrophobia, these stones were popular and there were frequent "letters to the editor". Actual tests were done. In 1867 Dr. John Shroff¹⁰ of Madras showed the absolute failure of these stones in cobra bites of pariah dogs. In 1904 Pitchford and Pitchford,⁴ in controlled rabbit experiments, showed the Snake Stones did adhere to the rabbit skin but had no value against the venom of the black mamba or the puff ader. H. C. White⁵ of Athens, Georgia, in 1903 reported some of his experiments before the British Association for the Advancement of Science. His Mad Stones, concretionary calculi, chiefly of tricalcium phosphate, could absorb 5 per cent by weight but had no real value. It seems that if these stones actually did absorb toxic products, the amount was not sufficient, and certainly stones placed away from the bite had even less value.

All this long introduction was necessary to show that the Cleves Stone used in Southwestern Ohio follows many parts of the ancient ritual for the Mad Stone treatment. The author has a personal interest in this stone since this may have been the one used on his father many years ago for a dog bite of the leg. The patient recovered. As children, we heard the story repeatedly. My recollection of the technic differs somewhat from the unorthodox technic described

by the present possessor of this stone. Because of the neighborhood associations of this stone, this is the stone, however, and may have been applied by the present owner's father. The stone has been a prized possession of the Wamsley family of Cleves for many years. The present owner is Clyde Wamsley¹¹ who has given the present description of this famous Mad Stone, and who has maintained a good critical attitude toward his stone. He has seen many treatments

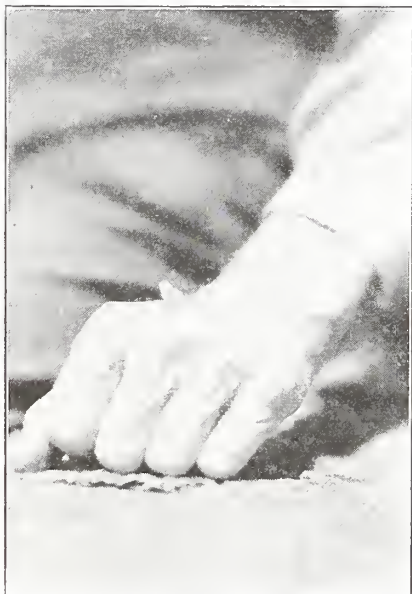


Fig. 3. The Usual Position of the Stone During the Treatment.

and many excellent results. The stone, however, has not been used in the past 33-35 years. At present, he has not permitted any controlled adhesion or absorption experiments.

The stone was acquired some 70-75 years ago by the Wamsley family from a very old man in Northern Kentucky. This gentleman had been given the stone by friendly Indians who claimed that there were many such stones in Kentucky but that the uninformed white man would never find them. The original stone was reported to have been a clear, glassy, hard, oval stone about 1x2½ inches. The Wamsley family contracted for a piece of this stone but it was very difficult to chip it. After the Cleves Stone and a smaller fragment were chipped off with difficulty, the owner refused any more manipulations in spite of relatively large sums of money. It is possible that this parent stone is the Burlington, Kentucky Stone. The two bits were retained by the Wamsley family and the larger portion is said to be the Cleves Stone. The smaller fragment is also in the family's possession.

The stone's shape is roughly triangular with the face about ½ inch and about ½ inch high.

The stone is clear, like crystal quartz, very hard. The base is duller in color and roughened. The sides are smooth. The stone transmits light but one can not read through it. The stone is said to be able to scratch glass.

The technic as given by Mr. Clyde Wamsley is very different from any of the other technics mentioned above. No matter where the bite has been, the stone is applied to the dorsum of the hand, usually the left. The application of the stone is delayed until three days after the bite. The purpose of this delay is to allow the stone to "get all the poison from the system". With a lancet a small nick is made in the skin, not deep enough to allow blood to flow. The stone is applied and it may remain in contact for short periods such as two to three hours or as long as 22 hours. The hand could be moved in all directions and the stone would adhere. As the stone remained on the skin, the stone became duller in color. When the stone fell off it was put in hot water. Bubbles rose to the surface for several minutes. The stone was dried and re-applied as often as it would adhere. So as not to loose the stone, the patients were kept at the farmhouse and were charged usually five dollars a day. Mr. Wamsley has told of many cures both of dog and snake bites. There are people living in Cleves at the present time on whom the stone had been used. It is hoped that the stone will be submitted for experiments and then given to the Ohio State Museum.

It has been shown how a very old and almost universal medical superstition has persisted up to our modern times. The inborn horror of animal bites and the previous want of any good specific therapy have accounted for this survival. Suggestion has probably played no little role in this also since the agonized patient can not fail to be impressed with the appearance of a very famous and reputable mysterious thing greedily sucking the poison from his body. And if with all this, the bite was not rabid nor venomous, then his cure will be absolute and his faith unshaken.

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Medical Phases of Conscription in Ohio Studied by State Association Committee; Plans Made for Cooperating With Draft Officials; Probable Procedure Outlined

ARRANGEMENTS for active cooperation with officials who will be in charge of conscription in Ohio under the provisions of the Selective Training and Service Act of 1940, recently enacted by the United States Congress, were being completed by the Committee on Medical Preparedness of the Ohio State Medical Association as the October issue of *The Journal* went to press.

An all-day meeting of the committee was held in Columbus on Sunday, September 22, when some of the plans made by the committee at a meeting on August 18 were completed and additional activities started. A large part of the work of the committee will be carried on with the assistance of committees on medical preparedness of the county medical societies.

TENTATIVE PROCEDURE

All details of conscription in Ohio have not as yet been worked out. However, tentative plans have been drafted, among which are the following:

1. Registration of male citizens of Ohio between the ages of 21 to 35, inclusive, except those specifically relieved from registering by the terms of the Selective Training and Service Act itself, will be handled by local boards of election at regular voting places on Wednesday, October 16. It has been estimated that approximately 800,000 Ohioans will be required to register.

2. Shortly after registration day, a drawing of numbers will be held at Washington to determine which of the registrants will be called first to appear before local draft boards. The board will determine whether the registrants shall be sent to a military training camp, be given a deferred status or exempted from training. It has been estimated that Ohio's quota of the first 400,000 men to be sent to training camp will be between 20,000 and 25,000.

3. Before registration day, 338 draft boards will be set up in Ohio. There will be one draft board for each 30,000 residents of each county or fraction thereof. Each board will consist of three citizens, nominated by the Governor and appointed by the President of the United States.

EXAMINING PHYSICIANS

4. An examining physician for each local draft board will be appointed by the President upon recommendation of the Governor. The examining physician will not be a member of the board and will have no vote in board proceedings. The examining physician must be beyond registration

age (21 to 35 years inclusive) unless physically disqualified for military service and resides in or near the area covered by the board which he will serve. To avoid turnover in medical examiner personnel, physicians who hold regular or reserve

SEND IN YOUR PREPAREDNESS BLANK! IT'S VITAL YOU DO SO

Last official count shows that 5,171 Ohio physicians have completed the A.M.A. Preparedness Questionnaire and filed it with the American Medical Association office at Chicago.

Ohio can, and should, do better than this. The figure is only 55.4 per cent of the total number of Ohio physicians to whom the questionnaire was mailed.

Complete and mail in your questionnaire immediately. If you have misplaced your questionnaire, ask your County Medical Society secretary for one or write to the Ohio State Medical Association, Headquarters Office, Columbus, for one.

This is an important obligation on the part of each physician. The information is essential to the A.M.A. in helping to plan the part the medical profession will play in the National Preparedness Program.

Every physician should have a questionnaire on file with the A.M.A., regardless of whether he is a member of the Medical Reserve Corps, affiliated with the National Guard or disqualified for active service because of age or physical disability. Information on every physician is needed so that plans can be made to take care of the medical needs of men in training camps and the civilian population in an orderly manner.

corps commissions, which makes them liable to call for active service, will in all probability not be appointed. Making a general physical examination of draftees will be the sole responsibility of an examining physician.

5. Medical Advisory Boards will be established to which draftees may be sent for special examinations in doubtful or disputed cases. Members of these boards will be appointed in the same manner as that used in the selection of local draft board medical examiners. There will be one Medical Advisory Board in each Congressional district.

6. After a draftee has been certified by his local draft board as qualified in all respects for immediate military training, the draftee must appear before a board of army physicians, known as an Induction Board, where he is given another physical examination. If found physically fit by that board, the draftee then is given orders to report to a particular training camp.

7. General supervision over the medical activities of the conscription machinery in Ohio will be placed in the hands of a physician, known as the Chief, Medical Division, of the State Headquarters of the Ohio Selective Service System, to be appointed by the Governor.

SOME GENERAL INFORMATION

Obviously, plans which have been worked out for handling conscription in Ohio are subject to change, meaning that the above procedures are only temporary in character and may be revised at any time.

Following is some general information obtained by Dr. Harry V. Paryzek, Cleveland, chairman of the Committee on Medical Preparedness at a conference of all state chairmen held by the American Medical Association in Chicago on September 20, and from other reliable sources.

Physicians who are commissioned officers of the Regular Army, the Navy, the Marine Corps, the Public Health Service, National Guard and the Medical Reserve Corps are not required to register on October 16. They are liable now for call at any time for active duty at training camps.

Physicians who may be drafted will have the privilege of applying for a commission before they are inducted into service.

In all probability, medical personnel for the training camps will be taken first from the Medical Reserve Corps. There are about 15,000 Medical Reserve officers in the country and approximately 8,000 of these officers may be called by July 1, 1941.

Medical Reserve officers and civilian physicians may be requested to assist the Army Induction Boards in examining draftees before they are inducted into the service.

Under present plans, no intern will be called

for active duty until he has completed his internship.

Medical school officials have been requested to furnish a list of men on faculties essential for the proper conduct of the school.

The number of physicians which will be required for the training camps and to fill Regular Army and National Guard vacancies had not been determined and quotas for the various states as to the number of physicians which will be called have not been fixed.

An effort will be made by *The Journal* to keep the membership informed of conscription developments affecting the medical profession. Some questions in the minds of members cannot be answered at this time because the preparation of permanent regulations governing conscription has not been completed and the conscription machinery is not ready to function.

Coming Meetings

American Medical Association, Cleveland, June 2-6, 1941.

American Academy of Ophthalmology and Otolaryngology, Cleveland, Oct. 6-11.

American College of Physicians, Boston, April 21-25, 1941.

American College of Surgeons, Chicago, Oct. 21-25.

American Public Health Association, Detroit, Oct. 8-11.

American Roentgen Ray Society, Boston, Sept. 26-Oct. 4.

American Society of Anesthetists, New York, Oct. 10.

Association of Military Surgeons of the United States, Cleveland, Oct. 10-12.

Central Society for Clinical Research, Chicago, Nov. 1-2.

Interstate Postgraduate Medical Assembly, Cleveland, Oct. 14-18.

Southern Medical Association, Louisville, Nov. 12-15.

Southern Surgical Association, Hot Springs, Va., Dec. 10-12.

Youngstown—Dr. Edgar C. Baker spoke on "Three Cases of Bone Lesions Causing Paralysis of Lower Extremities", at the annual meeting of the American Association for the Study of Neoplastic Diseases, September 5-7, at Washington, D. C.

What Is a Medical Service Plan?

Is Meant by an "Ohio Enabling Act"?

Why Does Ohio Need an Enabling Act?

How Does a Medical Service Plan Operate?

Who Controls a Medical Service Plan?

Will Sponsor an Ohio Enabling Act?

— SEE NEXT PAGE —→

What? Why? How? Who?

**TIMELY QUESTIONS AND ANSWERS ABOUT MEDICAL SERVICE PLANS
AND THE OHIO ENABLING ACT TO BE SPONSORED BY THE OHIO
STATE MEDICAL ASSOCIATION IN THE 1941 LEGISLATURE**

—New Questions and Answers Each Month—

THIS is the first of a series of questions and answers on Medical Service Plans and the Ohio Enabling Act, which will be sponsored by the Ohio State Medical Association, in the 1941 session of the General Assembly. In presenting this monthly feature, The Journal will attempt to give all members information which will be useful to them in mobilizing support for the enabling bill.

* * *

1. What is the purpose of an "Enabling Act" for medical service plans?

To create regulations governing the formation and operation of medical service plans for the protection of those subscribing for services. The law does not set up a plan; does not compel the formation of a plan; does not attempt to regulate medical matters when a plan is started. It establishes a special status for medical service plans (which legal authorities contend are a form of insurance), placing them under regulation but not requiring them to meet the rigid requirements of the general insurance laws because such plans are non-profit in character and do not offer cash benefits. An enabling law affords safeguards to the public by preventing wild-cat plans engineered by promoters. It protects the medical profession by preventing undesirable plans and by placing control and supervision of plans in the hands of the medical profession. Unless there is an enabling act, medical societies which want to start medical service plans to assist those of low-income will be unable to do so.

2. Are there any medical service plans in operation in Ohio?

At present there are no medical service plans such as those which would be authorized by an Ohio Enabling Act in operation in Ohio. Several county medical societies in Ohio have medical service plans drafted. They want to start operating them but cannot do so until enabling legislation is enacted. However, plans are being operated by medical societies in Michigan, Pennsylvania and New York under the provisions of enabling acts. Plans have been drafted by medical societies in many other states and probably will be placed in operation at an early date.

3. If the Ohio Enabling Act is passed, what kinds of medical service plans could be started in Ohio?

This must be answered in a general way. There is no standard plan. However, plans now in operation, or on paper, have certain common basic principles but they may differ somewhat as to details. Following is a description of a plan in which these basic provisions are incorporated and which might be started by a medical society in Ohio.

A non-profit organization is formed by certain members of the medical society with the sanction of the society. This non-profit organization obtains a license to operate a plan under the terms of the enabling law. The plan, which is drafted and approved by the medical society, provides for the payment of certain medical and surgical costs incurred by subscribers (those making stipulated periodic payments to the organization) from the fund created by subscribers' payments. Since the purpose of the plan is to benefit persons with low income, only persons of that group are permitted to become subscribers, the income limit being established by the organization (the medical society). Administrative matters are controlled by the medical profession. Any licensed physician is eligible to render professional services. Subscribers are permitted to select any physician from among those participating. Fees paid for services are fixed by the organization (the medical society). Administrative expenses are paid from the fund. Compensable services include both curative and preventive services, with some exceptions. Services rendered by hospitals are excluded.

SEE NEXT ISSUE FOR ADDITIONAL QUESTIONS AND ANSWERS

Fall Lecture Series Opens in Three Regions With Excellent Attendance and Practical Talks; Data on October Sessions



S. A. Hatfield, M.D.



Russell L. Haden, M.D.



John W. Means, M.D.



John N. McCann, M.D.

OPENING sessions of the 1940 Course of the Ohio State Medical Association Regional Postgraduate Lectures had been held at Mansfield, Warren and Napoleon up to the time this issue of *The Journal* went to press.

Reports from the three meetings indicate that the innovations of this year's course have the general approval of the membership. Both afternoon and evening sessions were well-attended, and the physicians enjoyed the opportunity of eating dinner together and discussing common problems. The men were especially pleased to receive the comprehensive summaries of the talks which were distributed at the close of the sessions.

Heeding the advice of the Sub-Committee on Regional Postgraduate Lectures, the speakers stressed diagnosis and treatment, and gave out

Because of the conflict with the meeting of the Interstate Postgraduate Assembly at Cleveland during the week of October 14, the second session of the Regional Postgraduate Lectures for Region C, at Mansfield, has been changed from Wednesday, October 16, to THURSDAY, OCTOBER 24. The same speakers will appear: Dr. Russell L. Haden, Cleveland, on "The Anemic Patient", and "Deficiencies and Anemia", and Dr. Wallace S. Duncan, Cleveland, on "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries".

practical information useful to physicians in their daily practice. Additional pointers were developed in the question-and-answer periods which followed the lectures.

PRESIDENT AT TWO SESSIONS

Dr. William M. Skipp, Youngstown, President of the Ohio State Medical Association was present for the opening of the lectures at Mansfield and Napoleon. At each of the sessions he gave a brief talk on the activities and program of the Association, emphasizing especially the work of the Committees on Medical Service Plans and on Military Preparedness, and the Legislative Committee. Dr. Skipp urged the members to become more interested and active in their county medical societies, warning them that this critical period in the history of medicine calls for a united, energetic profession.

Three members of the Committee on Medical



J. M. Hayman, Jr., M.D.



Wallace S. Duncan, M.D.



A. Carlton Ernstene, M.D.



James H. Warren, M.D.

Service Plans also gave short talks at these sessions: Dr. Fred M. Douglass, Toledo, at Napoleon; Dr. Carl R. Damron, Mansfield, at Mansfield; and Dr. John E. Rauschkolb, Cleveland, at Warren. They explained the objectives of their committee, and asked for the support of the membership in the campaign to get an Enabling Act for Medical Service Plans on the statute books of Ohio.

Dr. Harry V. Paryzek, Cleveland, President-Elect of the State Association and Chairman of the Committee on Medical Preparedness, told physicians at Warren that it is imperative that they return their medical preparedness questionnaires immediately to the American Medical Association.

Brief talks on organization matters were given by Dr. R. L. Rutledge, Alliance, Councilor for the Sixth District, at the Warren session, and by Dr. S. V. Burley, Lorain, Councilor for the Eleventh District, at Mansfield.

ATTENDANCE IS GOOD

Dr. Mabel Emery, Local Chairman of Arrangements, presided at the session for Region C, held at the Mansfield-Leland Hotel, Mansfield. The speakers were: Dr. Jas. G. Kramer, Akron, who discussed "The Child and His Heart", and "Meningitides in Children", and Dr. H. M. Clodfelter, whose topics were "The Clinical Approach to the positive Mantoux Test" and "Management of Heart Failure in the Home". Registration was 108. In addition 25 wives of physicians attended a dinner arranged by the Woman's Auxiliary of the Richland County Medical Society.

Members registered at the session for Region D, at the Hotel Warner, Warren, numbered 97. Dr. Robert F. Parker, Jr., Cleveland, spoke on "The Clinical Approach to the Positive Mantoux Test" and "Practical Uses of Sulfanilamide and Its Derivatives". Subjects discussed by Dr. E. H. Baxter, Columbus, were "The Child and His Heart", and "Meningitides in Children".

At the session for Region A, held in the auditorium of the Parish House of St. Paul's Lutheran Church, Napoleon, Dr. S. H. Ashmun, Dayton, spoke on "The Child and His Heart" and "Meningitides in Children", and Dr. Homer D. Cassel, Dayton, discussed "The Clinical Approach to the Positive Mantoux Test", and "Management of Heart Failure in the Home". Registration was 77.

Other sessions scheduled for September were: Region B, September 25, Tiffin and Lebanon; September 26, Cadiz, Athens and Wapakoneta. Reports on these sessions will appear in the November issue of *The Journal*.

Accompanying this article are photographs of some of the speakers who will appear on the programs for the second sessions in the various regions. Pictures of the speakers scheduled for

the opening sessions were published in the September issue.

Following is a list of future lectures in each region, with place of meeting, dates, speakers and their subjects:

REGION A—NAPOLEON

Parish House Auditorium, St. Paul's Lutheran Church

October 10—"The Anemic Patient", and "Deficiencies and Anemia", Dr. S. A. Hatfield, Columbus; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. H. M. Clodfelter, Columbus.

November 14—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Henry M. Goodyear, Cincinnati; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Ralph G. Carother, Cincinnati.

REGION B—TIFFIN

Tiffin Theater, Dinner at Hotel Shawhan

October 23—"The Anemic Patient", and "Deficiencies and Anemia", Dr. J. M. Hayman, Jr., Cleveland; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. C. L. McKibben, Toledo.

November 27—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. C. W. Engler, Cleveland; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Albert L. Bershon, Toledo.

REGION C—MANSFIELD

Mansfield-Leland Hotel

October 24—"The Anemic Patient", and "Deficiencies and Anemia", Dr. Russell L. Haden, Cleveland; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Wallace S. Duncan, Cleveland.

November 14—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. C. E. Kinney, Cleveland; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. Chas. T. Way, Cleveland.

REGION D—WARREN

Warner Hotel

October 30—"Childhood Ear Infections: Proper Treatment to Prevent Deafness", and "Complications of the Common Cold", Dr. Paul M. Moore, Jr., Cleveland; "Modern Treatment of Pneumonia", and "Management of Heart Failure in the Home", Dr. A. Carlton Ernstene, Cleveland.

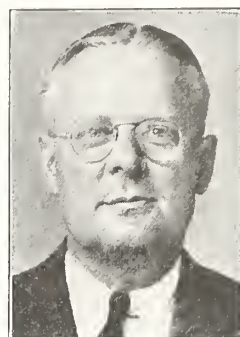
November 27—"The Anemic Patient", and Defi-



C. C. Sherburne, M.D.



C. L. McKibben, M.D.



D. M. Glover, M.D.

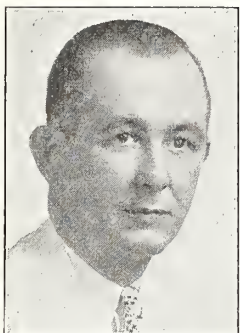
ciencies and Anemia", Dr. Charles A. Doan, Columbus; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Judson D. Wilson, Columbus.

REGION E—CADIZ

General Custar Hotel

October 24—"The Anemic Patient", and "Deficiencies and Anemia", Dr. John N. McCann, Youngstown; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. James H. Warren, Columbus.

November 28—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Fred W. Dixon, Cleveland; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Edson J. Brown, Cleveland.



W. H. Evans, M.D.



A. B. Brower, M.D.

REGION F—ATHENS

Berry Hotel

October 24—"The Anemic Patient", and "Deficiencies and Anemia", Dr. Albert F. Kuhl, Dayton; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. C. C. Sherburne, Columbus.

November 28—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. James O. Beavis, Dayton; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Joseph A. Freiberg, Cincinnati.



K. V. Kitzmiller, M.D.



B. K. Wiseman, M.D.

REGION G—COLUMBUS

Deshler-Wallick Hotel

October 9—"The Heart and Acute Infectious Diseases in Children", and "Meningitides in Children", Dr. John A. Toomey, Cleveland; "The Clinical Approach to the Positive Mantoux Test", and "Management of Heart Failure in the Home", Dr. Harry V. Paryzek, Cleveland.

November 6—"Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. D. M. Glover, Cleveland; "Complications of the Common Cold", and "Child-



Albert F. Kuhl, M.D.



Paul M. Moore, Jr., M.D.

hood Ear Infections: Proper Treatment to Prevent Deafness", Dr. W. H. Evans, Youngstown.

December 4—"Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. J. M. Rueggsegger, Cincinnati; "The Anemic Patient", and "Deficiencies and Anemia", Dr. M. A. Blankenhorn, Cincinnati.

REGION H—WAPAKONETA

Elks' Home

October 24—"The Anemic Patient", and "Deficiencies and Anemia", Dr. A. B. Brower, Dayton; "The Clinical Approach to the Positive Mantoux Test", Dr. Myron D. Miller, Columbus; "Modern Treatment of Pneumonia", Dr. K. V. Kitzmiller, Cincinnati.

November 28—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Louis R. Effler, Toledo; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. B. J. Hein, Toledo.

REGION I—LEBANON

Town Hall, Dinner at Golden Lamb Hotel

October 23—"The Anemic Patient", and "Deficiencies and Anemia", Dr. Bruce K. Wiseman, Columbus; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. John W. Means, Columbus.

November 27—"Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. Julien E. Benjamin, Cincinnati; "Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Russel G. Means, Columbus.

REGION J—PORTSMOUTH

American Legion Hall

October 3—"The Child and His Heart", and "Management of Heart Failure in the Home", Dr. Bernard Schwartz, Cincinnati; "The Clinical Approach to the Positive Mantoux Test", and "Meningitides in Children", Dr. Frank E. Stevenson, Cincinnati.

November 7—"The Anemic Patient", and "Deficiencies and Anemia", Dr. A. B. Brower, Dayton; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. C. C. Sherburne, Columbus.

December 5—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Edward King, Cincinnati; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Drew L. Davies, Columbus.

Medicine's Policy!

To refresh the memory of its readers The Journal again publishes the platform adopted by the Board of Trustees of the American Medical Association at Chicago, November 17-19, 1939. Based on the established policies and principles laid down by the House of Delegates of the A.M.A., the platform was formulated to guide the American Medical Association and state and local societies in their dealings with legislative bodies and public medical and health agencies. It reads as follows:

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

Final Draft of Enabling Act on Medical Service Plans Is About Ready; Intensive Educational Campaign Started

STEADY progress in completing plans for the introduction of an Enabling Act for Medical Service Plans into the 94th Ohio General Assembly when it convenes in January, 1941, is being made by the Committee on Medical Service Plans, working under the direction of the Committee on Public Relations and Economics and The Council of the Ohio State Medical Association.

The Council, acting under the unanimous mandate in support of an Enabling Act issued by the House of Delegates at the 1940 Annual Meeting of the State Association in Cincinnati last May, has assigned to the Committee on Medical Service Plans the important job of drafting the Enabling Act and a promotional campaign in its behalf.

COMMITTEE HOLDS PROLONGED SESSION

The committee held an all-day meeting in Columbus on Sunday, September 8. At that time, a proposed draft of the act was presented by a sub-committee. This draft was discussed section by section by the committee and by the legal counsel for the committee. Various changes were suggested and agreed to. At an early meeting of the Committee on Public Relations and Economics the revised draft will be reviewed. Finally, on October 13, The Council will consider the bill and whip it into final form.

Preliminary plans for activities, which will be necessary before and after the bill has been introduced into the General Assembly, were made by the Sub-Committee on Legislation of the State Association at a meeting held in Columbus on Sunday, September 15.

EDUCATIONAL CAMPAIGN STARTED

The promotional campaign to bring about enactment of the proposal by the Legislature has been started. A communication over the signature of President Skipp has been sent to each member of the Ohio State Medical Association. This communication was accompanied by an attractive pamphlet entitled "Why Ohio Needs An Enabling Act For Medical Service Plans". Reasons for the enabling act; what may be accomplished through it; some of its general provisions; and how each physician can help are discussed in the pamphlet.

Letters also have been sent by Dr. Skipp to the presidents and secretaries of all county medical societies requesting their active personal assistance in disseminating information about the Enabling Act; asking them to set aside part of one of the Fall meetings of their society for a

discussion of the bill and medical service plans; offering the services of members of the Committee on Medical Service Plans for addresses before county medical societies; and requesting the designation of a committee in each county medical society to act as an auxiliary committee to the Committee on Medical Service Plans of the State Association.

SUPPORT OF PUBLIC NEEDED

Plans are being made for publicity through the newspapers and radio, to arouse the interest of the public. Pamphlets for distribution to lay individuals and organizations are being prepared. Conferences with officials of organizations and with influential citizens for the purpose of soliciting their support will be held. Speakers will be provided for meetings of organizations who may be interested in learning about this first step in the medical profession's effort to bring about a wider distribution of the benefits of modern medical service through the organization by the profession itself of prepayment medical care plans for persons of low-income in communities where there is the need for such a plan.

Members who may desire additional information about the Enabling Act and medical service plans should get in touch with the State Headquarters Office, Columbus, which will endeavor to supply the information requested.

Special attention is called to the catechism on the Enabling Act and medical service plans being presented by *The Journal*, starting with this issue. (See pages 1105 and 1106).

New Surgical Association

At the Annual Meeting of the American Surgical Association last May, at St. Louis, there was founded a new organization, designed particularly for the closer association of the younger surgeons of the Middle West and adjacent Canadian Provinces. This is to be known as the "Central Surgical Association". The officers elected at the organization meeting were: President, Dr. Roy D. McClure, Detroit; president-elect, Dr. Grover C. Penberthy, Detroit; secretary, Dr. George M. Curtis, Columbus; treasurer, Dr. Max Zininger, Cincinnati; recorder, Dr. Henry K. Ransom, Ann Arbor; and councillors, Doctors Willis D. Gatch, Indianapolis; Kellogg Speed, Chicago, and Carl F. Lenhart, Cleveland. The organization was further developed during the annual meeting of the American Medical Association, at New York City. Its first regular meeting is to be held during the latter part of February, 1941, at the University Hospital, Ann Arbor, Michigan.

Do You Know - - -

The Board of Trustees of the American Medical Association has appointed Dr. Clyde L. Cummer, Cleveland, Local Chairman of Arrangements for the Ninety-Second Annual Session of the A.M.A., to be held at Cleveland, June 2-6, 1941.

* * *

Cancer research being directed at the University of Cincinnati College of Medicine by Dr. Edward W. Wallace, associate professor of pharmacology, will be aided by a \$1,500 grant from the National Advisory Cancer Council, Washington, D. C. The current grant is the second, the Cancer Council having awarded the University \$4,350 three years ago to aid Dr. Wallace's investigation of the endocrine relationships of cancer.

* * *

Dr. Harry V. Paryzek, Cleveland, President-Elect of the Ohio State Medical Association, and Dr. R. H. Markwith, State Director of Health, were guests of honor at the annual golf tournament and dinner of the Eleventh Councilor District, Wednesday, August 28, at the Westfield Country Club, Leroy.

* * *

Dr. Charles W. Pavey, Columbus, received third prize in the third Annual Essay contest of the Mississippi Valley Medical Society "for the best unpublished essay on a subject of practical and applicable value to the general practitioner of medicine." Subject of Dr. Pavey's essay was: "Study of Female Sterility".

* * *

A course in the technique of public speaking, both over the radio and from the platform, is made available to the members of the Philadelphia County Medical Society, Philadelphia, Pa., under the auspices of its Speakers Bureau.

* * *

Beginning with the fall of 1941, Harvard University will inaugurate a five-year course in its renamed School of Dental Medicine. Graduates in this new course will receive both M.D. and D.M.D. degrees. This new development is made possible by a gift of \$650,000 from the Carnegie Corporation, \$400,000 from the Rockefeller Foundation and \$250,000 from the Markle Foundation.

* * *

The United States Public Health Service estimates that 90 per cent of all people in the United States suffer from some kind of foot trouble.

* * *

Guest speakers at the 75th Annual Meeting of the Michigan State Medical Society, September 24-27, at Detroit, included Dr. John A. Toomey, Cleveland, who discussed "Chemotherapy in the Acute Infectious Diseases".

Under the auspices of the Cleveland Anti-Tuberculosis League, fluoroscopic examinations were made of the 4,200 employees of Thompson Products, Inc.

* * *

Dr. and Mrs. James A. McClure, Columbus, celebrated their 60th wedding anniversary, September 2. That day was also Dr. McClure's 85th birthday. He is now in his 60th year in the practice of medicine. His son, Dr. Roy D. McClure, is chief of staff at Ford Hospital, Detroit.

* * *

Dr. George W. Crile, Cleveland, and Charles F. Kettering, Dayton, received gold key awards for outstanding contributions to the field of physical medicine at the 19th Annual Congress of Physical Therapy held in Cleveland in September. New officers of the Congress include: Dr. H. W. Kendell, Dayton, fifth vice-president, and Dr. Walter J. Zeiter, Cleveland, executive secretary.

* * *

Dr. F. Park Lewis, Buffalo, N. Y., internationally known ophthalmologist, died September 10. Dr. Lewis, who was 85 years old, was chiefly responsible for the founding of the National Society for the Prevention of Blindness in 1908.

* * *

Nearly 14,000 people died from appendicitis in the United States in 1939.

* * *

Col. E. R. Bradley, Kentucky race horse owner, has donated his \$125,000 property at Palm Beach, Fla., known as the "Oasis Club", to the Institutum Divi Thomae of Cincinnati, to be converted into a marine laboratory for cancer research.

* * *

Michigan Medical Service had 66,982 persons enrolled July 31, including wage-earners, and in most instances their dependents. At least one out of every nine doctors of medicine in Michigan has been paid, through the plan, for services to subscribers. Total service was in excess of \$100,000 during the first six months.

* * *

Dr. Lee Foshay, Cincinnati, was one of the guest speakers at the 99th Annual Meeting of the State Medical Society of Wisconsin, September 18-20 at Milwaukee. His subject was: "The Diagnosis of Brucellosis".

* * *

The American Hospital Association, under the presidency of Dr. Fred G. Carter, Cleveland, held its 42nd annual convention September 16-20, at Boston, Mass.

Message from the President

Physicians Must Take An Active Part in Fall Election Campaigns; Profession Should Support Candidates with Sound Views on Medical and Health Matters; Suggestions as to How Each Member of State Association Can Help

ELECTION Day is approaching. Those who will make and administer our laws will be selected by the voters on Tuesday, November 5. The physicians of Ohio should be prepared to vote intelligently on that day. As good citizens, they should be vitally concerned in seeing that only qualified persons are elected to important public offices. As physicians, they should support candidates who can be counted on to protect the health and well-being of the people by basing their official actions on health matters on sound advice offered by the medical profession and by refusing to do anything which would destroy health safeguards or lower the standards of medical service.

There was a time when the candidate for public office gave little, or no, thought to the attitude of the medical profession on governmental questions. That day has passed. In the Fall of 1938, the medical profession was not ignored. To the contrary, its views and support were solicited by many candidates and its influence played no small part in the outcome of the elections held that year.

There was a time when the medical profession was labeled as a disinterested party in elections, legislative activities and governmental affairs. That day, too, has passed. Today, the medical profession is on the playing field; not on the sidelines.

NO POLITICAL ALIGNMENT

Let it be understood that as an organization, the medical profession is not officially nor unofficially aligned with any political party. As an organization, we are not for this candidate nor against that candidate because he is affiliated with this or that political party. We do not ask the power of dictatorship on medical and health questions, believing that democratic principles should govern these as well as all other matters of public interest.

But, as citizens and as members of a great profession, we have the right to actively support candidates in whom we have confidence, especially when it comes to making decisions on health and medical questions. We have a right to expect candidates to look to us for guidance on questions about which we are qualified through training and experience to give proper advice and information. We have a right to express our disapproval of candidates who would use their offices and influence to eliminate present health safeguards, to lower professional standards, and

to place the medical profession under political domination.

HOW EACH MEMBER CAN HELP

"What are we expected to do?" you ask. In my opinion there are a number of ways each member can make his own influence and that of the entire medical profession felt in the present election campaigns:

1. Make it your business to find out if the legislative committee, or committeeman, of your county medical society (each society should have one) is on the job and doing a real job.

2. Volunteer your services to your legislative committee, or committeeman. It is unfair to expect a single committee, or individual, to shoulder the entire responsibility. When asked to help, roll up your sleeves and go to work.

3. Demand that political issues and the qualifications of candidates be discussed at an early meeting of your county medical society.

4. Get acquainted with the various candidates; find out something about their background and qualifications.

5. Analyze information regarding the candidates, which will be provided for you by your local legislative committee, or committeeman, and study data which will be sent to you by the Committee on Legislation of the Ohio State Medical Association.

6. Relay information about candidates which you may obtain from various sources, to your local legislative committee, or committeeman. In this way, pertinent information will not be overlooked.

7. Familiarize yourself with questions in which the medical profession is especially interested and with the policies of the profession regarding them so you will be in a position to provide candidates with proper information and to discuss such questions intelligently while talking with candidates.

8. Get out and work for candidates who deserve the support of physicians. "Say it with votes!" Get votes among your relatives and friends for deserving candidates.

CANDIDATES TO BE INTERVIEWED

The Committee on Legislation of the State Association held an all-day meeting in Columbus on September 15. At that time plans were made for interviewing candidates for public offices, for obtaining information about them, and for transmitting such information to members of the As-

sociation. Suggestions have been sent to all local legislative committeemen who will be expected to take the lead in such activities in their respective counties.

But, whatever good work may be performed by the state committee and the local committeemen will not be sufficient. They need—must have—the active cooperation of all members of the State Association—6,400 strong. The real work has to be done at home by local committeemen, assisted by members of their societies. Now—before the election on November 5—is the time for the profession to assert itself and to begin the job of providing candidates with accurate information and proper advice.

WILL YOU DO YOUR PART?

Will you, as a citizen and as a doctor of medicine, do your part? Much depends on your answer to this question. The relationship between government and the medical profession can be good or bad, depending on the caliber of those holding legislative and administrative offices. Your vote and your interest may represent the balance of power. The health of the people is dependent on the quality of medical care, the efficiency of public health administration and the maintenance of health safeguards. The medical profession always has done more to preserve these health benefits than any other single group. It must not relinquish that responsibility. You owe it to yourself, to your profession and to the public which you serve to make the period between now and November 5 an active one on behalf of those who are qualified for and deserving of public office—local, state, and national.

Openings for Doctors in Navy, Marine Corps and Naval Reserve; Where and How To Get Proper Data

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire (MC), has announced that the Medical Corps of the Navy is being increased in strength proportionate with the expanding Navy and the Marine Corps. Examinations for appointments as commissioned officers in the Medical Department of the Navy will be held January 6-9, 1941.

Dr. McIntire also announced that appointments are being made in the Medical Corps, United States Naval Reserve, of male citizens of the United States, graduates of class "A" medical schools, who are under 50 years of age and who meet the physical and professional requirements.

The examination to be held in January will be for appointment as Assistant Surgeon, in the Medical Corps of the regular Navy, effective approximately two months from date of examination, and for Acting Assistant Surgeon (Intern), effective July 1, 1941. Requests for

authorization to appear for these examinations should be submitted to the Bureau of Medicine and Surgery, Navy Department, Washington, D. C., in sufficient time to permit the authorization to reach the applicant prior to December 30, 1940.

Applicants for appointments as Assistant Surgeon must be citizens of the United States between the ages of 21 and 31, graduates of Class "A" medical schools and have completed one year of intern training in a hospital accredited for intern training by the Council on Medical Education and Hospitals of the American Medical Association.

Applicants for appointment as Acting Assistant Surgeon (Intern) are not required to submit evidence of previous intern training, and are appointed for a period of 18 months, during which time they serve as interns in the larger naval hospitals which are approved for intern training. After completion of one year of service Acting Assistant Surgeons are eligible for examination for appointment as Assistant Surgeons. Acting Assistant Surgeons and Assistant Surgeons receive the pay and allowances of a Lieutenant (junior grade).

A circular of information for applicants for appointment as medical officers of the Navy, containing full information regarding physical requirements, professional examinations, rates of pay, and promotion and retirement data may be obtained by addressing the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

Applicants for appointment in the Medical Corps of the United States Naval Reserve should write the Commandant of the Ninth Naval District, Great Lakes, Illinois, who will upon request furnish complete information regarding vacancies in ranks, etc., of officers of the Medical Corps, United States Naval Reserve in the district.

New Radium Control Instruments

Two new radium control instruments in portable form which promise to be of great value to hospitals employing radium or high-voltage X-rays have been perfected at the National Bureau of Standards, the Department of Commerce has announced. The first of the instruments is suitable for measuring low gamma-ray intensities, down to the equivalent of 0.1 microgram of radium. The second is a dosage meter for gamma rays which indicates dosage in terms of roentgens per day and in addition gives a visual and audible alarm when this dosage reaches the maximum permissible amount of 0.1 roentgen per day. It will also give warning of excessive general exposures whenever large sources of gamma radiation are present, as from radium, high-voltage tubes, and cyclotrons.

Health Quiz Staged by State Medical Association at the State Fair a Big Success; More Than 13,000 Participate

MORE than 13,000 Ohio citizens, ranging in importance from the Governor of the State to inquisitive school children, visited the booth of the Ohio State Medical Association at the 1940 Ohio State Fair, August 24-30, to take the "health quiz" which was offered to promote interest in the problems of health and

Dental Society, the Ohio Public Health Association, the Ohio State Nurses' Association, the Women's Field Army, and the Ohio Department of Health.

Throughout the seven days of the exposition there was a constant crowd about the booth of persons taking the 20-question quiz, having their



Governor Bricker, whose active interest in medical and health matters is well known to members of the Ohio State Medical Association, made it a special point to stop at the Association's booth and take the quiz on one of his visits to the Fair. Later he commented: "In my opinion the Health Quiz was an educational feature of great value. It is one more evidence that Ohio's medical profession is doing a good job in the spreading of health information and the prevention of disease through popular education. I was glad to notice, when I stopped at the booth, that this unique health lesson was attracting a great deal of interest." The Governor is shown here with Roger Lyons, one of the four senior medical students who assisted at the booth.

medical care and to give the public accurate information on these questions.

This unique Fair exhibit, the second which the State Association has sponsored, was planned and arranged by the Bureau of Public Education. Located in the building which housed educational exhibits of state and federal agencies, its neighboring booths were those of the Ohio State

papers graded on the spot, and checking their mistakes against the little leaflet of correct answers which they were given after taking the test. This leaflet also contained a brief explanation of each answer. In those explanatory paragraphs was found the most effective educational material.

The booth was manned by four Ohio State

University senior medical students — Roger Lyons, Franklin Rodabaugh, Richard Yoder, and Morris Battles—who worked in two shifts of two and were dressed in white interns' uniforms at all times. They checked the answers, gave each person his score, and distributed the leaflets of correct answers. Much credit for the success of the project should go to these young men, who were courteous and friendly at all times and always ready to answer questions or discuss the answers with the Fair visitors.

Not only were they prepared to offer fuller explanation of the correct answers to the quiz questions, but they were ready to present the medical profession's viewpoint on problems of medical economics to anybody who wished to discuss them. Chiefly because of one or two questions on the quiz which were in that field, opportunities for this type of discussion arose rather frequently.

SOME TYPICAL QUESTIONS

Following are typical questions taken from the list of 20: "Why does your doctor take your blood pressure?" "When a person suffers persistent abdominal distress, what should he do?" "What is the commonest cause of pneumonia?" "What is the proper procedure for a person with diabetes?" "What is the term for a physician who is properly qualified to treat serious eye difficulties?" "Which of the many proposals for making adequate medical care more readily available to everybody do physicians think is wisest?" "How does your physician make a definite diagnosis of tuberculosis?"

The basic psychological principle behind this type of a Fair exhibit was the fact that visitors to the Fair are generally quite impervious to suggestion via posters and other displays, particularly if they have gazed at several dozen other booths already, but they are very receptive to educational material if they are given a task to perform or an opportunity to participate in something. This fact, plus the present popularity of the quiz idea, made for even greater success than was anticipated.

Secondary values of the Fair exhibit, aside from its primary function of popular education, are the conclusions that may be drawn from it about general public knowledge of health and medical matters. It was surprising to note that not many persons realized the true purpose of blood pressure testing, and very few people seemed to realize that optometrists and opticians are not physicians. On the other hand, it was obvious from checking the quizzes that the modern lessons about venereal disease control have been taught very well and that a surprisingly large number of persons are aware of the medical profession's interest in voluntary medical service plans as the best solution to the problem of more equitable distribution of medical care. Apparently too few people know what

are the best natural sources of all vitamins.

Scores of 100 were exceedingly rare, and those who did achieve them were usually nurses, medical students, or members of physicians' families. The average adult score was between 65 and 75. Many high school students who had taken hygiene courses achieved surprisingly high grades.

The quiz and the answer leaflet were prepared by the Bureau of Public Education in collaboration with several State Association officers and committeemen and health education authorities. A limited supply of both pieces is on hand in the Bureau and may be obtained by members for use at club meetings, church programs, Boy Scout troops, etc., until exhausted.

A.M.A. Weekly Radio Broadcasts to be Resumed November 13

"Doctors at Work", is the title of the radio program to be broadcast by the American Medical Association this coming winter and spring over the Blue network of the National Broadcasting Company, beginning Wednesday, November 13, at 10:30 to 11 p.m., eastern standard time. The program will be in dramatized form, constituting the sixth consecutive season of dramatized broadcasting by the Association on a nationwide network. The theme will be the interpretation to the listener of services available in the treatment of disease and the preservation and promotion of health through the various branches of modern medicine. Thirty programs are planned dealing with different phases of medical practice, beginning with medical education, internship, residency and general practice, and embracing all the major specialties in medicine and in medical phases of public health work.

The scripts will be written by William J. Murphy, director of continuity for the central division of the National Broadcasting Company, and will be under the supervision of the Bureau of Health Education of the A.M.A., with the co-operation of Miss Judith Waller, educational director, N.B.C., central division.

The evening hour, (10:30 to 11) assigned for this program is the most favorable hour that has ever been made available for these sustaining health education broadcasts. Poster announcements of the programs are available in any reasonable quantity which can be effectively used, on request from local medical societies, units of the Woman's Auxiliary, health departments, schools or other educational institutions. Requests should be addressed to the Bureau of Health Education, A.M.A., 535 N. Dearborn St., Chicago.

Titles of programs will be published three weeks in advance in *The Journal of the A.M.A.*, and monthly in advance in *Hygeia*. Comments on the program from physicians and other listeners are invited.

In Our Opinion:

Comments on Current Economic and Social
Questions and Professional Problems;
Suggestions Regarding Organized Activities

REGISTER! INQUIRE! ELECTIONEER! VOTE!

In our opinion any Ohio physician who claims to be so busy that he cannot take a personal interest in the 1940 political campaign, or who fails to do so simply because he "can't be bothered", has the earmarks of being a mediocre citizen and is a chap who apparently cares little or nothing about the preservation of the traditions and ideals of his profession. The period between now and Election Day, November 5, ought to be one of real activity for the doctors of Ohio. As individuals they must be interested in how their government is operated, and by whom. As a group, they must be interested in seeing that the right kind of persons are elected to administrative and legislative positions, so that medical and health standards will be maintained and radical changes in the American way of dispensing health and medical services averted.

Assuming that all Ohio physicians are willing to take a role in the pre-election campaigns now going on, here are a few suggestions as to how each physician can help:

1. Register, if required by law to do so, in order to make yourself eligible to vote on November 5.

2. Make it a point to find out something about all candidates for public office. This should be done at once. Data will be sent to all members of the Association in the near future regarding some of the candidates.

3. Especially, get information on candidates for the various Federal and State offices, including the legislative branches. Ask the Legislative Committee of your County Medical Society for information. It has the information you need—or will have it shortly.

4. Get acquainted with as many of the candidates as possible.

5. Pass on the information you receive to members of your family, your friends and acquaintances. Get out and do some real electioneering for qualified candidates.

6. See that election matters are discussed at a meeting of your County Medical Society before November 5. If the Legislative Committee isn't on the job, raise Cain. If other members of the society show a lack of interest, point out to them the foolishness of their attitude.

7. It's easy to find out a candidate's attitude on medical and health questions if you'll just go to the trouble to ask him or have someone do the interrogating for you. Most candidates like to reveal their position on important matters.

8. On Election Day, November 5, be sure to vote and see to it that your relatives and friends vote. By that time you should know which candidates will make good public officials. A man cannot be a good public official unless he recognizes the value of health and the importance of safeguarding the health of the people. Officials who follow the advice of the medical profession on such matters will not be led astray. Therefore, the safe candidate is the one who intends to look to the medical profession for guidance and advice on medical and health questions.

Medical Education Showing Constant Improvement, A.M.A. Report Reveals; Data on Ohio Schools and Hospitals

THE Fortieth Annual Presentation of Educational Data by the Council on Medical Education and Hospitals of the American Medical Association, for the academic year 1939-1940, published in the August 31, 1940, issue of *The Journal of the A.M.A.*, pages 685-784, shows that medical education in the United States is constantly improving.

This comprehensive report of the present status of undergraduate and postgraduate medical education in the United States and Canada includes information regarding the approved undergraduate medical schools; revised lists of hospitals approved for the training of interns and approved for residences and fellowships in the specialties; summary of the activities of state medical associations and other agencies providing continuation courses for practicing physicians; official requirements of the 15 approved examining boards in medical specialties, and principles regarding graduate medical schools.

APPROVED SCHOOLS NUMBER 76

Approved medical schools number 67 in the United States and nine in Canada. Ten schools giving two-year courses in the basic medical sciences are approved in the United States and one in Canada. The report includes the following descriptive and factual data containing Ohio's three recognized medical schools:

University of Cincinnati College of Medicine, Eden and Bethesda Avenues, Cincinnati.—Organized in 1909 by the union of the Medical College of Ohio (founded in 1819) with the Miami Medical College (founded in 1852). The Medical College of Ohio became the Medical Department of the University of Cincinnati in 1896. Under a similar agreement, March 2, 1909, the Miami Medical College also merged with the University when the title of Ohio-Miami Medical College of the University of Cincinnati was taken. Present title assumed in 1915. Coeducational since organization. Candidates for admission to the freshman class must present three years of college preparation of not less than ninety hours. Liberal Arts students of the University of Cincinnati may sign up for the seven-year combined Liberal Arts and Medical program. The B.Sc. degree is granted on the joint recommendation of the Faculties of the Colleges of Liberal Arts and Medicine at the end of the first medical year. The faculty consists of 112 professors, associate and assistant professors, 350 instructors, etc., a total of 462. The course covers four years of eight months each, on the completion of which the M.B. degree is granted. A year's internship in an approved hospital is required, on completion of which the M.D. degree is granted. Beginning with the fall session of 1940-1941 the fees will be as follows: For legal residents of Cincinnati \$485 a year, plus laboratory fees, (\$50 additional for those not legal residents of Cincinnati). The registration for 1939-1940 was 303; graduates,

66. Session began Sept. 20, 1940, and ends June 6, 1941. The Dean is Stanley Dorst, M.D.

Western Reserve University School of Medicine, 2109 Adelbert Road, Cleveland.—Organized in 1843 as the Cleveland Medical College in cooperation with Western Reserve College. The first class graduated in 1844. It assumed the present title in 1881. In 1910 the Cleveland College of Physicians and Surgeons was merged. Coeducational since 1919. The faculty includes 89 professors and 233 lecturers, assistants and others, a total of 322. The curriculum covers three years of nine months each and one year of ten months. Three years of collegiate work are required for admission and a baccalaureate degree for graduation. The total fees are, respectively, \$442, \$430, \$415 and \$425. Beginning with the academic session of 1941-1942, the tuition fee will be increased by \$100 for each year. The registration for 1939-1940 was 265; graduates, 58. Session began Sept. 19, 1940, and ends June 11, 1941. The Dean is Torald Sollmann, M.D.

Ohio State University College of Medicine, Neil and Eleventh Avenues, Columbus.—Organized in 1907 as the Starling-Ohio Medical College by the union of Starling Medical College (organized in 1847 by charter granted by the State Legislature changing the name from Willoughby Medical College, which was chartered March 3, 1834) with the Ohio Medical University (organized 1890). In 1914 it became an integral part of the Ohio State University with its present title. Coeducational since organization. The faculty consists of 76 professors, associate and assistant professors, 96 lecturers, instructors, demonstrators and others, a total of 172. Three years of collegiate work are required for admission. The course covers four years of thirty-four weeks each. Tuition fees are \$327 for the first year, and \$312 for each of the other three years for residents of Ohio, and \$150 additional for nonresidents. The registration for 1939-1940 was 307; graduates, 77. The next session begins Oct. 1, 1940, and ends June 16, 1941. The Dean is J. H. J. Upham, M.D.

HIGH PRELIMINARIES REQUIRED

Discussing preliminary education, the report says: "The Council's minimum requirement for admission to approved medical schools is two years of college training which include English, and theoretical and practical courses in physics, biology and general and organic chemistry. Three years or more in college is, however, recommended. Since it cannot be generally assumed that all who have satisfied these requirements in terms of hourly credits are fitted for the study of medicine, qualitative standards also are imposed.

"For the session 1939-1940, sixty-six of the medical schools in the United States had a pre-medical prerequisite in excess of the minimum. For 1940-1941 only nine schools will admit students with less than three years of preparation.

"The general trend toward three or more years

of college work would appear to be due to a desire for more thorough grounding in all branches of chemistry and greater familiarity with non-science subjects, such as literature, history or economics.

"In 1936-1937, 12.5 per cent of the entering class had only the minimum of preliminary education, but by 1938-1939 the number had dropped to 3.8 per cent and in 1939-1940 to 2.0 per cent.

"With but five exceptions, namely California, Connecticut, Massachusetts, Missouri and Nebraska, the state licensing boards require two years of preliminary college training. The law in Massachusetts will change in 1941. Although the statutes do not include the two year college requirement, these states with the exception of Massachusetts do not license other than graduates of approved schools. Alaska, Hawaii and Puerto Rico likewise require two years of preliminary training."

ENROLLMENT IS 24,194

"Medical students enrolled in institutions in the United States and Canada number 24,194, exclusive of 1,152 fifth year students in the United States interning or engaged in research and 132 in Canada interning as a requirement for the degree of Doctor of Medicine or in order to be eligible for licensure," the report says.

"Since July 1, 1939, 5,703 received the degree of Doctor of Medicine, 5,097 from schools in the United States and 606 from Canadian institutions."

The University of Illinois College of Medicine, with awards of 162 diplomas, granted the greatest number of degrees. The Woman's Medical College of Pennsylvania, with 18, graduated the lowest number. Twenty-three schools granted degrees to classes of fewer than fifty students, thirty-three schools graduated between fifty-one and 100 each, seventeen from 101 to 150 and three less than 200 but more than 150.

Discussing birthplace of students, the Council says: "The greatest number of students registered, 2,776, according to state of birth, was from New York, followed by Pennsylvania with 1,867, Illinois with 1,356 and Ohio with 1,068.

"Foreign born students were matriculated in sixty-eight of the seventy-seven medical schools in the United States. There were 511 so enrolled, of whom thirty-two each were studying at the College of Medical Evangelists, Los Angeles, and the University of Illinois College of Medicine, twenty-five at New York University College of Medicine and twenty-four at Harvard Medical School. Other schools registered fewer than sixteen. It may be presumed that many of these are now citizens of the United States."

"Of the 6,005 students selected for the freshman class for the session 1935-1936," the report says, "it is interesting to note that 736 failed or for other reasons did not undertake sophomore

studies and further that 1,019 had dropped out by the end of the second medical year.

"While 214 fewer freshmen were enrolled in 1937-1938 than in 1935-1936, there were also 149 fewer students who had discontinued their course by the end of the second year."

Continuation of the yearly decrease since 1931 in the number of medical students is shown in Table 1, listing the number of medical schools, students and graduates in the United States for the years 1905, 1910, 1915, 1920 and each year thereafter.

TABLE 1

	Schools	Students*	Graduates
1905	160	26,147	5,606
1910	131	21,526	4,440
1915	96	14,891	3,536
1920	85	13,798	3,047
1921	83	14,466	3,186
1922	81	15,635	2,520
1923	80	16,960	3,129
1924	79	17,728	3,562
1925	80	18,200	3,974
1926	79	18,840	3,962
1927	80	19,662	4,035
1928	80	20,545	4,262
1929	76	20,878	4,446
1930	76	21,597	4,565
1931	76	21,982	4,735
1932	76	22,135	4,936
1933	77	22,466	4,895
1934	77	22,799	5,035
1935	77	22,888	5,101
1936	77	22,564	5,183
1937	77	22,095	5,377
1938	77	21,587	5,194
1939	77	21,302	5,089
1940	77	21,271	5,097

* Includes figures for schools of the basic medical sciences.

WOMEN STUDENTS

During 1939-1940 there were 1,145 women studying medicine in the United States, constituting 5.4 per cent of the student enrollment. There were 253 graduates, seven less than in 1939. Eighteen were graduated from the Woman's Medical College of Pennsylvania, while 235 secured their degrees from coeducational schools. In the years since 1925, 3,521 women have graduated in medicine. Statistics compiled by the American Medical Directory revealed that there were 7,470 women physicians in the United States.

SCHOOLS ARE SCATTERED

Medical schools are located in thirty-six states and the District of Columbia, the report says. Nine are located in the state of New York, which naturally had the greatest number of students and graduates, 2,589 and 597 respectively. Pennsylvania with six schools had 2,337 students and 569 graduates; Illinois with five schools, 1,979 students and 574 graduates ranked third, while Massachusetts with three schools, 1,113 students and 282 graduates completes the group of states having an enrollment of more than 1,000, although California with four schools had 999 students and 259 graduates.

"Twelve schools in the United States and three in Canada require an internship for graduation,"

the Council reports. "Several medical schools accept research or other clinical work in lieu of hospital service.

"The medical licensing boards of 22 states, the District of Columbia, Alaska, Hawaii and Puerto Rico require that all candidates for licensure possess a hospital internship. The first state to adopt this requirement was Pennsylvania in 1914. In addition, other states exact the internship of graduates of faculties of medicine abroad and of applicants for reciprocity or endorsement. Some of the medical schools and licensing boards have their own list of hospitals acceptable for intern training but the Council's approved list is generally in use.

FOREIGN SITUATION DISCUSSED

As to the number of American citizens studying medicine in faculties of medicine abroad, the report points out that "in the spring of 1939, according to incomplete official reports, there were at least 500 at that time in Europe, studying principally in the extra-mural medical schools of Scotland. Completion of the professional education of these students was interrupted by the decision of the State Department to discontinue visas of passports to combat areas. Many of these applied to American schools for either advanced credit or admission to the entering class of 1939-1940, with little success. The medical schools of the United States already have many more applicants for admission than they can possibly admit and at the time these students were seeking entrance the classes had already been filled to capacity."

The report points out that at a conference in March, 1940, the State Department agreed that for the present at least it would issue visas for Switzerland for the students who wish to continue their studies in that country. It was estimated that about 100 of the group will avail themselves of this possibility.

"With the movement of events in Europe in recent months," the Council says, "it is quite evident that it will be impossible for students from this country to obtain a medical education in Europe in the near future."

POSTGRADUATE TRAINING

That the important problem of maintaining and increasing the efficiency of practicing physicians has not been neglected by organized medicine and other directly interested agencies is shown by the Council's report that for 1939-1940 forty-one states and the District of Columbia provided a form of continuation study for physicians and, when clinical conferences were included, forty-four states and the District of Columbia offered graduate opportunities.

"Forty-one itinerant courses of continuation study for practicing physicians were offered in or near the home communities of physicians in thirty-one states," the Council reports. "State

medical societies sponsored the majority, with state boards of health as well as extension divisions of universities and medical schools as joint sponsors in many states.

"According to reports received, the approximate attendance at courses of an itinerant nature, clinical courses and graduate assemblies totaled 52,012. The individual registration of these groups in the order named was 20,213, 15,399 and 16,400."

INTERN TRAINING IN OHIO

The Council's report also contains a detailed list of the 732 hospitals approved by it for training interns. These institutions have a total of 6,791 internships with a capacity of 244,257 beds. Table 2 contains interesting information concerning the 42 Ohio hospitals approved for intern training. In addition the report lists 587 hospitals with approved residencies and fellowships. The residencies total 4,392 and the fellowships 726.

DATA ON OHIO HOSPITALS

Ohio hospitals approved for residencies in specialties are: **Communicable Diseases**, City Hospital, Cleveland. **Dermatology and Syphilology**, Cincinnati General Hospital; City Hospital and University Hospitals, Cleveland. **Gynecology**, University Hospitals, Cleveland; and Starling Loving University Hospital, Columbus. **Medicine**, City Hospital, Akron; Mercy Hospital, Canton; Cincinnati General Hospital, Deaconess Hospital, Good Samaritan Hospital, Jewish Hospital and Christ Hospital, Cincinnati; City Hospital, Cleveland Clinic Foundation Hospital, Mount Sinai Hospital, St. Alexis Hospital, St. John's Hospital, St. Luke's Hospital, St. Vincent Charity Hospital and University Hospitals, Cleveland; Starling Loving University, Columbus; St. Elizabeth's Hospital, Youngstown Hospital, Youngstown; Miami Valley Hospital, Dayton; Huron Road Hospital, East Cleveland; Lucas County General Hospital, Toledo. **Psychiatry**, Cincinnati General Hospital and Longview State Hospital, Cincinnati; City Hospital, Cleveland; Toledo State Hospital, Toledo; Harding Sanitarium, Worthington; Columbus State Hospital, Columbus. **Obstetrics**, Cincinnati General Hospital; City Hospital, Mount Sinai Hospital, St. Ann's Maternity Hospital, St. John's Hospital, St. Luke's Hospital and University Hospitals, Cleveland; and Miami Valley Hospital, Dayton. **Obstetrics-Gynecology**, Huron Road Hospital, E. Cleveland; Mercy Hospital, Canton; Lucas County General Hospital, Toledo. **Ophthalmology**, Cincinnati General Hospital; City Hospital and University Hospitals, Cleveland. **Ophthalmology-Otolaryngology**, Starling Loving Hospital, Columbus. **Orthopedic Surgery**, Cincinnati General Hospital; Mount Sinai Hospital, Cleveland Clinic Foundation Hospital and University Hospitals, Cleveland. **Otolaryngology**, Cincinnati General

Hospital; City Hospital, St. Luke's Hospital, University Hospitals and Cleveland Clinic Foundation Hospital, Cleveland. Pathology, Cincinnati General Hospital; City Hospital, Mount Sinai Hospital, St. Luke's Hospital, St. Vincent Charity Hospital and University Hospitals, Cleveland; Starling Loving University Hospital, Columbus; Miami Valley Hospital, Dayton. Pediatrics, Children's Hospital, Akron; Children's Hospital, and

General Hospital, Deaconess Hospital, Good Samaritan Hospital, Jewish Hospital, Cincinnati; City Hospital, Mount Sinai Hospital, St. Alexis Hospital, St. John's Hospital, St. Luke's Hospital, St. Vincent Charity Hospital, University Hospitals, Cleveland Clinic Foundation Hospital, Cleveland; Huron Road Hospital, East Cleveland; Starling Loving University Hospital, Columbus; Miami Valley Hospital, Dayton; St. Elizabeth's

TABLE 2
OHIO HOSPITALS APPROVED FOR TRAINING INTERNS

Name of Hospital	Location	Control	Capacity	Percent- age of Patients		Total Patients Treated	Type of Internship	Interns Appointed Annually	Length of Service in Months	Service Commences	Affiliated Service	Outpatient Service	Autopsy Percentage	Salary per Month	Appointments Made	
				Free Care For Teaching												
City Hospital	Akron	NPAssn	365	33	33	11,662	R	15	12	July	(81) Req	48	\$22	Nov		
Peoples Hospital ¹	Akron	NPAssn	176	23	23	4,811	R	4	12	July	(81) Req	36	\$30	Nov		
St. Thomas Hospital	Akron	Church	175	20	80	5,481	R	3	12	July	No	None	31	\$20	Nov	
Aultman Hospital	Canton	NPAssn	171	23	23	2,610	R	4	12	July	(82) Op	30	\$50	Nov		
Mercy Hospital	Canton	Church	235	19	*	6,247	R	5	12	July	No	Op	31	\$25	Nov	
Bethesda Hospital	Cincinnati	Church	279	35	20	6,581	R	7	12	July	No	Req	18	\$30 (d)	Nov	
Christ Hospital	Cincinnati	Church	371	13	95	5,332	R	9	12	June	(83) Req	28	\$22.50	Nov		
Cincinnati General Hospital ^{1, 3}	Cincinnati	City	972	87	100	15,979	R	40	12	July	(84) Req	69	No	Nov		
Deaconess Hospital	Cincinnati	Church	200	6	42	4,709	R	6	12	July	(85) Req	19	\$25 (e)	Dec		
Good Samaritan Hospital	Cincinnati	Church	615	5	8	11,102	R	12	12	June	No	Req	19	\$15	Nov	
Jewish Hospital ¹	Cincinnati	NPAssn	262	17	17	5,895	R	8	12	July	(86) Op	32	\$20	Dec		
St. Mary's Hospital	Cincinnati	Church	223	60	60	4,635	R	6	12	July	No	Req	18	\$25	Nov	
City Hospital ^{1, 3}	Cleveland	City	1,600	92	100	14,034	R	36	12	July	No	Req	40	No	Nov	
Fairview Park Hospital	Cleveland	Church	101	13	14	3,679	R	3	12	July	No	Req	43	\$30	Jan	
Lutheran Hospital ¹	Cleveland	Church	137	5	100	4,413	R	4	12	July	No	None	35	\$25 (d)	Nov	
Mount Sinai Hospital ^{1, 3}	Cleveland	NPAssn	270	13	23	8,638	R	6	24	July	No	Req	32	\$10 (g)	Nov	
St. Alexis Hospital	Cleveland	Church	220	35	35	5,281	R	8	12	July	(87) Req	37	\$10	Nov		
St. John's Hospital	Cleveland	Church	252	17	17	6,804	R	7	12	July	No	None	35	\$10 (aa)	Dec	
St. Luke's Hospital ³	Cleveland	Church	391	17	21	12,421	R & S	10	24	June	No	Req	35	No	Nov	
St. Vincent Charity Hospital	Cleveland	Church	295	32	35	6,317	R	12	12	July	(87) Req	40	No	Dec		
University Hospitals ^{1, 3}	Cleveland	NPAssn	807	28	48	20,151	M & S	25	12-24	(bb)	No	Req	61	(y)	Nov	
Woman's Hospital ¹	Cleveland	NPAssn	127	6	6	2,605	R	2	12	July	No	None	22	\$25	Dec	
Mount Carmel Hospital	Columbus	Church	225	20	5	5,779	R	6	12	July	(88) None	32	\$25	Jan		
St. Francis Hospital	Columbus	State	160	66	66	3,072	R	8	12	July	(89) None	34	\$125 yr	Nov		
Starling-Loving University Hosp ¹	Columbus	State	296	59	70	6,028	S	12	12	July	(90) Req	67	\$50 yr	Oct		
White Cross Hospital	Columbus	Church	271	12	100	6,981	R	6	12	July	No	None	51	\$25	Dec	
Good Samaritan Hospital ¹	Dayton	Church	283	40	28	4,857	R	4	12	July	No	None	21	\$25	Dec	
Miami Valley Hospital	Dayton	NPAssn	444	28	28	10,749	R	8	12	July	(91) None	37	\$25	Nov		
St. Elizabeth Hospital	Dayton	Church	400	35	38	8,020	R	6	12	July	No	None	24	\$25	Nov	
Huron Road Hospital ¹	E. Cleveland	NPAssn	256	9	—	8,371	R	8	12	July	No	Req	47	\$20	Nov	
Mercy Hospital	Hamilton	Church	240	40	75	3,240	R	3	12	July	No	Req	23	\$25 (cc)	Nov	
Lima Memorial Hospital	Lima	NPAssn	144	13	75	3,746	R	4	12	July	No	None	27	\$50	—	
St. Rita's Hospital	Lima	Church	117	—	—	2,355	R	2	12	July	No	None	30	\$35	Jan	
Springfield City Hospital	Springfield	City	298	39	65	5,647	R	7	12	July	No	Req	32	\$30	Nov	
Flower Hospital	Toledo	Church	160	6	—	2,725	R	4	12	July	No	None	25	\$25 (e)	Dec	
Lucas County General Hospital	Toledo	County	325	100	100	4,338	R	12	12	July	No	Req	37	\$25	Nov	
Mercy Hospital ¹	Toledo	Church	145	13	95	3,540	R	3	12	July	No	Req	37	\$25	Nov	
St. Vincent's Hospital ¹	Toledo	Church	354	30	30	8,954	R	11	12	July	No	Req	28	\$25	Jan	
Toledo Hospital	Toledo	NPAssn	275	8	—	5,519	R	8	12	July	No	Req	39	\$25	Nov	
Women's and Children's Hospital	Toledo	NPAssn	150	2	30	2,561	R	3	12	July	No	None	23	\$25	Jan	
St. Elizabeth's Hospital	Youngstown	Church	262	8	10	8,166	R	7	12	July	No	None	22	\$30 (d)	Nov	
Youngstown Hospital ³	Youngstown	NPAssn	567	20	20	11,516	R	16	24	July	No	Req	27	(dd)	Nov	

Explanatory references — Abbreviations: NPAasn — Nonprofit Association; Req — required; Op — optional; 1 — women interns admitted; 3 — dental interns employed. Affiliated Service: 81 — Children's Hospital, Akron, pediatrics; 82 — Molly Stark Sanatorium, Canton, tuberculosis; Massillon State Hospital, Massillon, psychiatry; 83 — Children's Hospital, Akron, pediatrics; 84 — Hamilton County Tuberculosis Sanatorium, Hamilton County Home and Chronic Disease Hospital, Cincinnati; 85 — Longview State Hospital, psychiatry; 86 — Cincinnati General Hospital, pediatrics, otolaryngology; 87 — St. Ann's Maternity Hospital, Cleveland; 88 — Children's Hospital, Columbus, pediatrics; 89 — St. Ann's Infant Asylum and Maternity Hospital, Children's Hospital, Columbus, obstetrics, pediatrics; 90 — Children's Hospital, Columbus State Hospital, Columbus, pediatrics, psychiatry; 91 — Stillwater Sanatorium, Dayton, tuberculosis. Notes: (d) — bonus of \$60; (e) — bonus of \$100; (g) — bonus of \$120; (aa) — bonus of \$30; (bb) — February, June, July, October; (cc) — bonus of \$250; (dd) — \$15 per month first year; \$30 per month second year; bonus of \$60 each year.

Cincinnati General Hospital, Cincinnati; University Hospitals, Cleveland; Children's Hospital, Columbus. Radiology, Cincinnati General Hospital and Jewish Hospital, Cincinnati; City Hospital, University Hospitals and Cleveland Clinic Foundation Hospital, Cleveland. Surgery, City Hospital and St. Thomas Hospital, Akron; Mercy Hospital, Canton; Christ Hospital, Cincinnati

Hospital, Youngstown; Lucas County General Hospital, Toledo. Tuberculosis, Hamilton County Tuberculosis Sanatorium, Cincinnati; City Hospital, Cleveland; Sunny Acres, Cleveland Tuberculosis Sanatorium, Warrensville; Franklin County Tuberculosis Sanatorium, Columbus. Urology, Columbus Tuberculosis Sanatorium, Columbus. Urology, City Hospital, University Hospital and

Cleveland Clinic Foundation Hospital, Cleveland; Starling Loving University Hospital, Columbus. Thoracic Surgery, City Hospital, Cleveland. Anesthesiology, Huron Road Hospital, East Cleveland; Mixed, Glenville Hospital, Cleveland; Mansfield General Hospital, Mansfield; Grant Hospital, Columbus. Cardiology, City Hospital, Cleveland. Neurosurgery, Cleveland Clinic Foundation Hospital.

REGARDING EXAMINING BOARDS

In its 40th annual report, the Council on Medical Education and Hospitals reproduces announcements of the approved examining boards in medical specialties, including the history of the organization of each, present officers, qualifications, purposes, fees, examination requirements and other pertinent data. Boards described in the report are: American Board of Anesthesiology, Inc., an affiliate of the American Board of Surgery; American Board of Dermatology and Syphilology; American Board of Internal Medicine, Inc.; American Board of Obstetrics and Gynecology, Inc.; American Board of Ophthalmology; American Board of Orthopaedic Surgery, Inc.; American Board of Otolaryngology; American Board of Pathology, Inc.; American Board of Pediatrics, Inc.; American Board of Psychiatry and Neurology, Inc.; American Board of Radiology, Inc.; American Board of Surgery, Inc.; American Board of Urology, Inc.; American Board of Plastic Surgery, a subsidiary of the American Board of Surgery; American Board of Neurological Surgery, Inc.; Advisory Board of Medical Specialties.

"There were 1,152 students in the United States and 132 in Canada reported as completing the fifth or intern year requirement of the medical schools which exact the fulfillment of the internship as requisite for the M.D. degree. In addition, statistics computed indicate that 98 per cent of the graduates of recent years have obtained or are obtaining this added experience."

In a discussion of this phase of medical education, *The Journal of the A.M.A.* in an editorial in the same issue, says "The internship is an established institution in this country, mutually profitable to both hospitals and interns. Each year more hospitals seek the privilege of instructing interns. Even in those states in which an internship is not legally required for licensure, practically all medical graduates voluntarily serve this form of apprenticeship. The merits of 'straight', 'mixed' and 'rotating' internships are still debated; probably all of these types are desirable and no one of them should be adopted to the exclusion of others."

Zanesville—Dr. W. L. Cruise was re-elected chief of the Good Samaritan Hospital staff. Dr. Fred Phillips was elected vice-president, and Dr. Robert S. Martin was renamed secretary.

Annual Toledo University Postgraduate Day Scheduled for November 1

All members of the medical profession are cordially invited to attend the Seventh Annual Postgraduate Day of the Medical Institute of the University of Toledo, Friday, November 1, at the University. Following the traditional custom of dedicating the program each year to one of the former leaders of the Academy of Medicine of Toledo, this year's Postgraduate Day will be in honor of the late Dr. O. Hasencamp.

Guest speakers will be two members of the faculty of the University of Pennsylvania School of Medicine: Dr. John S. Lockwood, associate in surgery and director of the Surgical Bacteriology Laboratory, Harrison Department of Surgical Research, and Dr. Harris F. Flippin, instructor in medicine. The tentative program follows:

MORNING PROGRAM

"History and Mode of Action of Sulfonamides", Dr. Lockwood.

"Pharmacology, Method of Administration and Toxicity of Sulfonamides", Dr. Flippin.

AFTERNOON PROGRAM

"Chemotherapy in Special Medical Infections (Urinary Tract, Scarlet Fever, Rheumatic Fever, Endocarditis, Malaria)", Dr. Flippin.

"Chemotherapy in Special Surgical Infections, Otogenic Infections and Meningitis; Septicemia; Cellulitis", Dr. Lockwood.

EVENING PROGRAM

"Chemotherapy of Respiratory Diseases", Dr. Flippin.

"Chemotherapy in Prophylaxis and Treatment of Traumatic Wounds, Puerperal Infections, and Peritonitis", Dr. Lockwood.

Further details concerning the meeting can be obtained by addressing George W. Cooley, executive secretary, Toledo Academy of Medicine, Monroe at Fifteenth St., Toledo.

Open New Offices

New offices have been opened in Ohio by the following physicians: Dr. Robert I. McPhail, Willshire; Dr. A. David Price, Chardon; Dr. A. Shepard Burroughs, Jr., Ashtabula; Dr. J. W. Miles, Columbus; Dr. F. M. Lindsay, Homeworth; Dr. Robert Baim, Toledo; Dr. Clyde W. Muter, Warren; Dr. Ben R. McCollam, Toledo; Dr. James J. Otis, Celina; Dr. J. E. Muzar, West Union; Dr. Morgan Dreffer, Montpelier; Dr. Emanuel C. Liss, Columbus; Dr. Carl H. Zinsmeister, Ottawa; Dr. J. Paul Roller, Luckey; Dr. Louis S. Kreindler, Cincinnati; Dr. Donald C. Snyder, Akron; Dr. Leo Weiss, Toledo; Dr. R. G. Schmidt, Celina.

NOW'S THE TIME TO BECOME FELLOW OF THE A.M.A.!

Since the 1941 session of the American Medical Association will be held in Cleveland next June 2-6, every eligible Ohio physician will want to attend as many sessions as possible of that great medical gathering. To be "eligible" to attend, a physician must be a Fellow of the A.M.A. Right now is the time for each physician to take care of this important matter by making formal application for Fellowship by writing directly to the American Medical Association, Chicago. Every member of the American Medical Association (every member of the Ohio State Medical Association) is eligible to apply for Fellowship. Cost of Fellowship is \$8.00 per year, the same as the subscription to The Journal of the A.M.A. and when a physician becomes a Fellow he receives The Journal of the A.M.A. free.

OHIO DOCTORS SHOULD APPLY NOW FOR FELLOWSHIP IN THE A.M.A.

Medical Care and Hospital Services Under Relief Act Defined by Attorney General

An opinion (No. 2648) attempting to define what services which an indigent patient receives while in a hospital should be paid for by local relief authorities (county or city) and what services the patient receives while in the hospital should be paid for by township trustees has been issued by Attorney General Thomas J. Herbert, under date of August 13.

The opinion was drafted in answer to the following question submitted by a county prosecutor: "Should medicines, dressings, operating room expenses, laboratory examinations, anesthetics, X-rays, delivery room expenses, special nurses' expenses, radium or deep therapy expenses, and emergency services furnished or administered by a hospital as such to an indigent person be considered as 'hospitalization' to be paid for by the township or should any of the above mentioned expenses be paid for by the county?"

Reiterating a previous opinion, the Attorney General points out that expenses of "medical care" as defined in the present State Relief Act (House Bill 675) must be borne by the local relief authorities—county or city—and that expenses of hospitalization are obligations of township trustees. Also, he refers to a previous opinion in which he held that when medicines and services of a physician are furnished to a person entitled to poor relief it is immaterial whether they are furnished in a home, a hotel or a hospital, since the definition of "medical care" in the act implies "wherever furnished".

The Attorney General states that "in using the term 'services of a physician' the legislature evidently intended to include within the meaning of poor relief only those services performed by a physician in his professional capacity" and that "similarly, the compensation for services of a physician would include compensation to the phy-

sician for all services performed by him in his professional capacity".

Dealing directly with the questions submitted to him, Attorney General Herbert said:

"Categorically answering your inquiry, in view of the observations above made, it would seem to me that operating room facilities, delivery room facilities or special nurse services could not, even under the broadest meaning of the term 'medicine', be construed as medical care.

"It would further seem that when medicines, dressings, laboratory examinations, anaesthetics, X-rays, radium or deep therapy expense are a part of the treatment being administered by a physician, they would be within the term services of a physician or medicines, as such term is used in Section 3391, General Code.

"With respect to medicines, including radium and supplies for surgical dressing, I am unable to discern by what line of reasoning they would be any the less medicines, whether purchased at a drug store, a grocery or a hospital storeroom, if they are used by the physician for the treatment or cure of a physical ailment or disease.

"It would further appear to me that if a laboratory examination or X-ray examination were made for the purpose of aiding a physician in the diagnosis or treatment of a physical ailment, when such examination is made under the supervision and control of the physician as distinguished from the hospital, such might well be considered as medical care and the cost therefor paid by the local poor relief area.

"However, if the laboratory examinations, X-ray examinations, deep therapy expenses and emergency services were furnished by the hospital, as such, through its staff of nurses, internes, or resident doctors, and the charge therefor included in the contracted rate for hospital care, it would seem to me that they should be considered as incidental to and a part of the hospital services and for such reason would not be a part of "poor relief" as that term is defined in Section 3391, General Code.

"In Section 3391, General Code, the definition of 'medical care', above quoted, states that 'medical care' means medicines and * * * furnished at public expense.' In such definition, there is no limitation upon the term 'medicines', as to the person by whom they may be furnished. The statute does not state that medicines shall constitute poor relief when furnished by any

particular person. Since the term 'medicine', in its ordinary acceptation, includes substances when used as an intended cure for physical ailments rather than when used as a beverage or condiment, we must presume that the legislature used such term in that sense. Since the practice of medicine in part consists in the prescribing, advising, recommending, administering, for compensation, a drug or medicine, appliance or application for the cure or relief of a wound, fracture or injury, infirmity or disease, I believe it is fair to assume that the legislature only intended to authorize the inclusion of medicines within medical care when such medicines were lawfully dispensed or administered to indigent persons at public expense. Since a hospital, as such, has no authority of law to prescribe or administer medicines, I do not believe it was the legislative intent to permit such institution to be compensated from public funds for acts which they may not lawfully do. I am not unmindful that in connection with the normal operation of a hospital there are included on its staff licensed physicians in the capacity of internes, resident physicians and staff physicians and surgeons who have been licensed by the state to practice medicine, who treat patients in hospitals both medically and surgically. Such physicians, by virtue of having complied with Ohio statutes, are authorized by law to and I presume do both prescribe for and administer medicines to patients confined in a hospital. Since Section 3391, General Code, in defining medicine as medical care, does not contain any limitations upon the type of medicines that may be included in medical care, we must construe the term as it is used and include all medicines lawfully administered.

"Therefore, when administered or prescribed by a licensed physician, such medicines would, of course, be lawfully administered whether or not such physician is employed by a hospital. It would consequently appear that medicine furnished to a patient who is being cared for in a hospital by or under the direction of a licensed physician, whether it be an interne, house physician, staff doctor or otherwise, would be medicine or medical care within the definition thereof in Section 3391, General Code; especially, when it is not intended either by the hospital or the patient that such medicine be a part of the hospital service contracted for."

Seek Homes in America for Children of British Physicians

Ohio physicians who may be interested in providing homes for children of British physicians who are among the British children being evacuated to the United States are requested to get in touch with Dr. L. L. Bernstein, Brooklyn Jewish Hospital, 555 Prospect Place, Brooklyn, N. Y. A communication received by *The Journal* from Dr. Bernstein, named as "local representative", was accompanied by a letter from Dr. J. Landman, London, reading in part as follows:

"A scheme is being arranged for the evacuation of 500-1000 children of British doctors to the U.S.A., and it is desired to find homes for them with American colleagues.

"The British doctors would wish to pay for the support of their children, but owing to the present Treasury regulations forbidding the export

of capital, it is proposed that temporarily a sum of money (provisionally 100 pounds per child is suggested) be paid into a trust fund which will be administered by an insurance company and ultimately disbursed to the doctors in the U.S.A., in accordance with an equitable scheme to be agreed upon by the Parents' Committee and the corresponding American Reception Committee with the approval of the British Treasury."

A form which accompanied the letter provided a place for the name of the physician offering to assist; place for designating the number of children he will care for, and place for stating preference as to sex and religious affiliation of the child or children.

Summit County Postgraduate Day To Be Held at Akron, October 23

A group from the faculty of the University of Michigan Medical School, Ann Arbor, will speak at the Ninth Annual Postgraduate Day of the Summit County Medical Society, at the Mayflower Hotel, Akron, Wednesday afternoon, October 23, beginning at 2 o'clock. The program follows:

"The Menace of Obesity", and "Diagnosis and Treatment of the So-Called Secondary Anemias", Dr. Cyrus C. Sturgis, professor of internal medicine.

"Intrathoracic Tumors", and "The Management of Bronchiectasis", Dr. John Alexander, professor of surgery.

"Problems in Severe Hyperthyroidism", Dr. Walter G. Maddock, associate professor of surgery.

"An Evaluation of the More Modern Drugs in the Management of Allergic Patients", and "The Problem of Diagnosis and Management of the Eczema Patients", Dr. John M. Sheldon, assistant professor of medicine.

Further details concerning the session can be obtained by writing Dr. A. S. McCormick, secretary of the Summit County Medical Society, 115 N. Portage Path, Akron.

Interesting Booklets on Heart

Two interesting booklets were recently published by the American Heart Association. "Standardization of Blood Pressure Reading" is the result of a careful study by joint committees appointed by the Association and the Cardiac Society of Great Britain and Ireland. The purpose of "Examination of the Heart" is to outline the clinical examination of the heart without the help of any instrument other than the stethoscope. Copies of these booklets can be obtained, without cost, by addressing the American Heart Association, Inc., 50 West 50th St., New York.

THE TRACE ELEMENTS IN BIOLOGICAL MATERIALS

● Students of nutrition recognize a total of some thirteen inorganic elements either as essential to humans or, in our present state of knowledge, as probably desirable for complete nutrition. For certain of these elements—definitely proven to be essential—reasonable estimates of the daily human requirements have been made. In addition, the distribution in common foods of minerals, especially those essential minerals most apt to be deficient in the diet, is well understood. Certainly, enough information appears to be at hand to insure an optimal supply for the individual of these essential or desirable elements through modern diet planning.

However, for many years it has been known that traces of elements, other than those known to be essential, may be present in animal and plant tissues (1, 2). Improvements in analytical techniques have been made and greater precautions observed in the handling of the materials used for analysis in studies reported within recent years. The results of these newer investigations have only served to confirm the fact observed in the older studies, namely, that "trace elements" may be present in biological materials, including mammalian tissues, along with the other elements recognized or accepted as essential in nutrition.

A fairly complete list of the trace elements includes silicon, aluminum, fluorine, nickel, arsenic, bromine, rubidium, barium, and selenium. The persistent occurrence of these elements in foods and in animal tissues logically raises two questions. First, are these elements essential in human nutrition, and second, assuming them to be essential, how might an adequate supply be obtained.

For the first of these two questions, there is as yet no conclusive answer (1, 2). Study of the possible part the trace elements may play in normal body functions comprises one of the frontiers of nutritional research. The fact that the trace elements are more or less consistently present in animal tissues is not necessarily conclusive proof of their essential character in nutrition; further research alone must decide that point.

The second of the above questions can be answered somewhat indirectly. It is not illogical to believe that we already recognize as essential those elements whose serious deficiency in the diet may produce the most serious irregularities in the human organism. Further, as stated above, the distribution of the known essential minerals in foods is well understood and by modern diet planning an adequate supply of these nutrients should be readily attained. It is not meant to imply that all of the trace elements are without significance in human nutrition, or that one essential nutrient is more important than another. Instead, it is intended to suggest that the distribution of all elements in foods is probably such that a protective diet—calculated to supply optimal amounts of all known essential minerals—should also supply the proper amounts of any unknown essential elements, as well.

Thus, the need for following the modern pattern of diet formulation is further indicated. The most practical means of insuring the needed quantities of all essential nutrients—recognized or as yet undiscovered—is to plan the ration according to the concepts and teachings of the modern science of nutrition. In pursuing the modern diet pattern (2), commercially canned foods should prove both valuable and convenient.

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REFERENCES

1. 1939. Mineral Metabolism, Alfred T. Shohl, Reinhold, New York.
2. 1939. Food and Life, Yearbook of Agriculture, U. S. Dept. Agri., U. S. Government Printing Office, Washington, D. C.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-fourth in a series, which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

In Memoriam

William Baird Andrews, M.D., Kent; Cleveland University of Medicine and Surgery, 1890; aged 73; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 28. Dr. Andrews practiced in Kent for 50 years. He was one of the early workers in the Portage County Medical Society, helping in its reorganization after its founders had died. Dr. Andrews served the society in every capacity and in all offices, having been president several times. Prominent also in community affairs, he was a member of the Kent Board of Education for 16 years, a member of the Portage County Board of Health for two years, and served 11 years as president of the Portage County Board of Health. Dr. Andrews was one of the organizers and a former president of the local Rotary Club, and one of the founders of the Twin Lakes Country Club. He was a member of the Masonic Order and the Congregational Church. Surviving are his widow, a daughter, two sons—one of whom is Dr. Robert Andrews, Cleveland; a sister and two brothers.

Thomas Blair, M.D., Ann Arbor, Mich.; University of Michigan Medical School, Ann Arbor, 1892; aged 78; former member of the Ohio State Medical Association and the American Medical Association; died August 28. Dr. Blair moved to Ann Arbor 15 years ago, after having practiced in Lyons, Fulton County, for many years. Surviving are a daughter and two sons, one of whom is Dr. Thomas H. Blair, Ann Arbor, Mich.

Charles Gailey Brown, Sr., M.D., Mansfield; Jefferson Medical College of Philadelphia, 1901; aged 66; member of the Ohio State Medical Association, Fellow of the American Medical Association and the American College of Surgeons; died September 2. Dr. Brown practiced in Mansfield for 36 years. He was a member of the United Presbyterian Church and the Rotary Club. Widely known throughout the state as a breeder of Guernsey cattle, he had been director of the Ohio Guernsey Breeders' Association for the past 12 years. His widow, a son, Dr. Charles G. Brown, Jr., Mansfield, and a sister survive.

Brady B. Buck, M.D., Canton; Western Reserve University School of Medicine, Cleveland; 1902; aged 64; member of the Ohio State Medical Association and the American Medical Association; died September 8. Dr. Buck had practiced in Canton since 1919. He was formerly located at Harlem Springs and later at Carrollton. Dr. Buck was a member of the Presbyterian Church, the Masonic Order, the I.O.O.F., and the Eastern Star. Surviving are his widow, a daughter, a son and three brothers.

Joseph D'Lancy Ely, M.D., Fayette; Detroit Medical College, 1884, and Medical College of Cincinnati, 1896; aged 85; died August 29. Dr. Ely retired two years ago after having practiced 50 years in Toledo and a brief time in Hudson, Mich. Surviving are his widow, three daughters and a son.

Abram Everett Frye, M.D., Youngstown; College of Medicine and Surgery, Ph.M., Chicago, 1903; aged 70; former member of the Ohio State Medical Association and the American Medical Association; died September 3. Dr. Frye practiced in Marion and Raymond before locating in Youngstown in 1934. His widow, a son, two sisters and a brother survive.

William E. Gill, M.D., Norwalk; Pulte Medical College, Cincinnati, 1877; aged 85; died September 6. Dr. Gill practiced in Norwalk for 53 years. He was a member of Company G of the Ohio National Guard when that unit was a part of the 16th Regiment. Civic activities included membership in the Young Men's Library and Reading Room, Whittlesey Academy of Arts and Sciences, Firelands Historical Society, and the Norwalk Board of Health. A son—Dr. Robert C. Gill, Norwalk, survives.

Cora Holden, M.D., Mentor; Women's Medical College of Pennsylvania, Philadelphia, 1882; aged 87; died September 10. Dr. Holden was a practicing physician for a number of years in Cleveland.

Clarence A. Ihle, M.D., Dayton; Medical College of Ohio, Cincinnati, 1902; aged 62; died September 7. Dr. Ihle had practiced in Dayton since 1918. He was a veteran of the Spanish-American War. Surviving are two sisters and two brothers.

James T. Norton, M.D., Kent; Western Reserve University School of Medicine, Cleveland, 1910; aged 57; former member of the Ohio State Medical Association and the American Medical Association; died August 27. A former president of the Portage County Medical Society, Dr. Norton retired in 1933 because of ill health, after having practiced in Kent for 21 years. During World War 1, he served overseas in the Medical Corps of the U. S. Army. He was a member of the Masonic Order, the Rotary Club and the Episcopal Church. His widow survives.

Franklin Pierce Russell, M.D., Akron; University of Wooster Medical Department, Cleveland, 1880; aged 88; former member of the Ohio State Medical Association and the American Medical Association; died September 5. Retired for the



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past decade, Dr. Russell practiced for 50 years in Portage and Summit counties. He was a charter member of the Suffield Lodge of the Knights of Pythias and belonged to the Fifty Year Club.

Joseph Stanley Shinn, M.D., Troy; Starling Medical College, Columbus, 1905; aged 61; former member of the Ohio State Medical Association and the American Medical Association; died August 20. Dr. Shinn practiced in Troy for 35 years, retiring about six months ago because of ill health. During World War 1, he was a lieutenant in the Medical Corps of the U. S. Army. Active in civic affairs, especially high school athletics, Dr. Shinn once each year took the entire high school football team to one of the Ohio State games. His widow and a sister survive.

Clement D. Smith, M.D., Dayton; Medical College of Ohio, Cincinnati, 1901; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died September 4. An active member of the Montgomery County Medical Society, he served as its president in 1934-35. Since that time he had been chairman of the public relations committee and on the board of censors. Last June Dr. Smith was elected legislative committeeman. He had practiced in Dayton for 36 years, and was a member and former chief of the staff of St. Elizabeth's

Hospital. Dr. Smith was a Mason and a Presbyterian. His widow, a son, Dr. Corwin A. Smith, a daughter and two sisters survive.

Caesar William Sunseri, M.D., Steubenville; Jefferson Medical College of Philadelphia, 1919; aged 45; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 15, at Camp McCoy, Wisconsin, where he was taking part in army maneuvers as captain and commanding officer of Co. F, 112th Medical Regiment, Ohio National Guard. Dr. Sunseri practiced in Steubenville for 20 years. He had served as vice-president and treasurer of the Jefferson County Medical Society. He was a member of the Catholic Church and the Elks' Lodge. Surviving are his widow, his mother, three daughters, three sisters and two brothers—Dr. S. C. Sunseri, Pittsburgh, and Dr. Albert Sunseri, Steubenville.

Oscar Ewing Townsend, M.D., Elyria; Eclectic Medical College, Cincinnati, 1911; University of Cincinnati College of Medicine, 1912; aged 54; member of the Ohio State Medical Association and the American Medical Association; died August 17. Dr. Townsend practiced in Elyria for 21 years and was a member of the staff of Elyria Memorial Hospital. He was a first lieutenant in the Medical Corps of the United States Army in

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1918-1919, serving in France a year in Base Hospitals 83 and 91. Dr. Townsend was a member of the First Congregational Church and the American Legion. Surviving are his widow and two daughters.

Association of Military Surgeons Will Meet in Cleveland, Oct. 10-12

The Association of Military Surgeons of the United States will hold their forty-eighth annual convention at the Hotel Statler, Cleveland, October 10, 11 and 12. In view of the present world situation, this is expected to be the most important meeting ever held by this organization.

The program will deal with the problems and technic of medicine in modern warfare, with special emphasis on recent progress. Among distinguished speakers will be Surgeon General Ross T. McIntire of the Navy, Brigadier General Frank T. Hines, Administrator of Veterans' Affairs, and Major General C. R. Reynolds, U. S. Army, retired. There will be an extensive scientific exhibit as well as a commercial exhibit.

A smoker will be held the first night and a banquet the second night, at which Dr. George Crile will be the toastmaster and the Hon. James R. Garfield, former Secretary of the Interior, will be the principal speaker. Special plans for the ladies include a luncheon, a tea and an automobile tour of the city.

The program follows:

I. Selection of Military Personnel

"Selection of Men Adapted for Special Fields," Surg. Gen. Ross T. McIntire.

"Physiological and Psychological Characteristics of Successful Pilots," Col. Ross McFarland.

II. Advances in Medical Technic

"So-Called Shell Shock: Types, Etiology and Means for Its Prevention," Dr. Crawford N. Baganz.

"New Medical Developments in the Present European Conflict," Maj. Gen. C. R. Reynolds.

"Chemotherapeutic Developments Since the Last War," Dr. Russell L. Haden.

"Blood and Plasma Transfusion," Dr. John Elliott.

"Preparation, Supply, Distribution and Use of Blood Plasma in Military Services as Determined by the Committee Working with the Research Committee of the National Defense Council," Capt. Douglas B. Kendrick.

"Differential Diagnosis of Neurocirculatory Asthenia (Soldier's Heart) and Results in 152 Denervations of the Adrenal Glands in Treatment of Neurocirculatory Asthenia," Drs. E. P. McCullagh and George Crile.

"Perforating Gunshot Wounds of the Abdomen," Dr. Elkin L. Rippey.

"Newer Types of Narcotics," P. A. Surgeon, C. K. Himmelsbach.

III. Military Phases of Medicine

"Diseases Associated with Naval Warfare," Com. John C. Adams.

"Submarine Medical Problems," Lt. A. R. Behnke.

"Surgical Technic in Modern Battle," Col. Gustavus M. Blech.

"Veterinary Food Inspection: Its Importance and Responsibility," Dr. Orville E. McKim.

"The Veteran's Administration and National Defense," Brig. Gen. Frank T. Hines.

"Airplane Transportation of the Wounded," Lt. Col. David N. W. Grant.

"Notes on the German Medical Service in the War in Poland," Dr. Hartleben.

"Dental Service in Military Establishment," Brig. Gen. Leigh C. Fairbank.

"The Medical Officer's Responsibility in the Present Emergency," Lt. Col. Leon A. Fox.

"The Medical Preparation of the National Guard," Maj. Gen. John F. Williams.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)
CLINTON

Members of the Clinton County Medical Society and their wives enjoyed a picnic luncheon at the camp of Dr. Frank A. Peele, Wilmington, Tuesday, September 5.—News clipping.

HAMILTON

The 1940-1941 year of the Academy of Medicine of Cincinnati was opened September 24 when Dr. E. O. Swartz gave the address of the retiring president and Dr. Charles E. Kiely, the incoming president, gave his inaugural address. Reports of standing committees were received.—Bulletin.

HIGHLAND

Dr. Robert L. Crudginton, assistant professor of obstetrics, University of Cincinnati College of Medicine, spoke on "Complications of Pregnancy", at a meeting of the Highland County Medical Society, Wednesday noon, September 4, at the Hotel Parker, Hillsboro.—News clipping.

WARREN

The first Fall meeting of the Warren County Medical Society was held in the Town Hall, Lebanon, Tuesday, September 3. Dr. W. B. Taggart, Dayton, talked on "Jaundice in Infancy". Dr. James L. Sagebiel, Dayton, will speak at the next regular meeting, Tuesday, October 1. Local arrangements are completed for the 1940 Regional Postgraduate Lectures to be held at Lebanon, Sept. 25, Oct. 23 and Nov. 27.—A. D. Harvey, M.D., secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

Dr. Josef Workany, Cincinnati, gave an interesting lecture on "Endocrine Disturbances in

Children", at a meeting of the Greene County Medical Society, Thursday, September 5, at Xenia.—Donald F. Kyle, M.D., secretary.

MIAMI

At a meeting of the Miami County Medical Society, Friday afternoon, September 6, at the Stouder Hospital, Troy, Dr. Harry E. LeFever, assistant professor of neurological surgery, Ohio State University College of Medicine, Columbus, gave a most instructive talk on "Head Injuries", and a motion picture, entitled "The Anemias", was shown through the courtesy of Eli Lilly and Co.—G. A. Woodhouse, M.D., secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

LOGAN

The Logan County Medical Society met at the Hotel Ingalls, Bellefontaine, Friday night, September 6. The subject of medical preparedness was discussed by some of the local physicians who had attended army camps during the Summer.—Frederick W. Kaylor, M.D., secretary.

MERCER

A well-attended business meeting of the Mercer County Medical Society was held at the residence of Dr. Charles C. Henrie, Celina, Tuesday, September 10. Dr. John T. Gibbons was appointed secretary-treasurer for the coming year.—John T. Gibbons, M.D., secretary.

SENECA

The annual social meeting of the Seneca County Medical Society for members and their wives was held at the Mohawk Country Club, Tiffin, Wednesday, September 11. A golf tournament was held in the afternoon, followed by din-

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ner, at which special musical entertainment was provided.—M. H. Aiken, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

Dr. Russell L. Cecil, professor of clinical medicine, Cornell University Medical School, New York, spoke on "Present Status of Serum Therapy and Chemotherapy in the Treatment of Pneumonia", at a meeting of the Academy of Medicine of Cleveland, Friday evening, September 20, at the Medical Library Auditorium.—Bulletin.

Officers of the Women's Auxiliary to the Cleveland Academy of Medicine are: Mrs. F. C. Oldenburg, president; Mrs. Alexander T. Bunts, vice-president, and Mrs. C. G. LaRocco, secretary-treasurer.—News clipping.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

Dr. Charles T. Way, Cleveland, was the guest speaker at a meeting of the Portage County Medical Society, at the office of Dr. E. M. Kauffman, Kent, Thursday evening, September 5. Dr. Way discussed case studies of different types of kidney diseases, with emphasis on diagnosis and treatment. He showed slides of tables giving comparative chemical analyses of urine.—E. J. Widdecombe, M.D., secretary.

STARK

Dr. Walter Engel of the University of Pennsylvania School of Medicine, Philadelphia, spoke on "Diagnosis of Intra-Abdominal Conditions", at a meeting of the Stark County Medical Society, Wednesday, September 11, at the Shady Hollow Country Club, Massillon. A golf tournament in the afternoon and dinner preceded the meeting.

The program was arranged by the Massillon committee, consisting of Dr. R. W. Frankmann, chairman; Dr. J. A. Carnes, Sr., Dr. R. H. Clunk and Dr. C. S. Palmer.—Clair B. King, M.D., secretary.

SUMMIT

"Certain Phases of the Cancer Problem", was the subject discussed by Dr. T. P. Eberhard, director, The Ellis Fischel State Hospital, Columbia, Mo., at a meeting of the Summit County Medical Society, Tuesday, September 3, at the Mayflower Hotel, Akron.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

TUSCARAWAS

Dr. William N. Taylor, Columbus, professor of genito-urinary surgery, Ohio State University College of Medicine, was the speaker at a meeting of the Tuscarawas County Medical Society, Thursday evening, September 12, at the Reeves Hotel, New Philadelphia.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

BELMONT

Members of the Belmont County Medical Society and their wives met at the Belmont Hills Country Club, Bellaire, Thursday, September 12. During the afternoon the women discussed the formation of a Woman's Auxiliary, and the men played golf. Following dinner, Dr. Elmer G. Horton, Columbus, spoke on "The Prevention and Treatment of Acute Contagious Diseases With Special Emphasis on Poliomyelitis".—News clipping.

GUERNSEY

Dr. R. H. Markwith, State Director of Health, spoke on "Public Health Administration", at a meeting of the Guernsey County Medical Society, Thursday noon, August 15, at Cambridge. At the

The Bancroft School

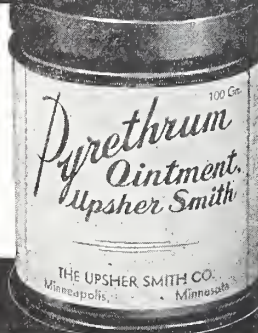
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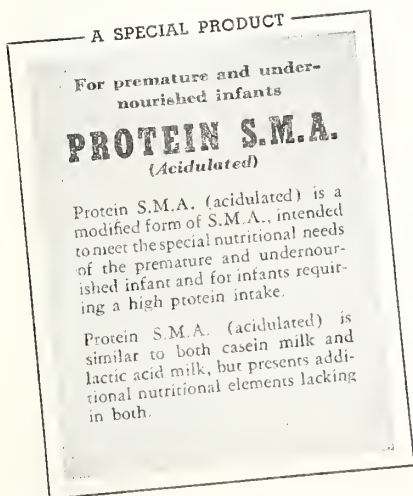
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society's meeting, Thursday, September 5, Dr. C. J. Shepard, Columbus, gave a talk on "Ring Worm".—O. Reed Jones, M.D., correspondent for *The Journal*.

MORGAN

Dr. Fred W. Phillips, Zanesville, was guest speaker at a meeting of the Morgan County Medical Society, Thursday, September 19, at McConnellsville.—Edgar Northrup, M.D., secretary.

MUSKINGUM

The first Fall meeting of the Muskingum County Academy of Medicine, Wednesday evening, September 4, at the University Club, Zanesville, was devoted to a discussion of organization matters.—Beatrice T. Hagen, M.D., secretary.

PERRY

Dr. William H. Miller, Columbus, spoke on "X-Ray Therapy and Fever Therapy", at a meeting of the Perry County Medical Society, Thursday noon, August 15, at the Park Hotel, New Lexington.—News clipping.

Dr. Richard I. Brashear, Columbus, discussed "Common Conditions of the Rectum", at a meeting of the society, Thursday, September 19, at New Lexington.—F. J. Crosbie, M.D., secretary.

WASHINGTON

"Infantile Paralysis", was the subject discussed by Dr. Athey R. Lutz, Parkersburg, W. Va., at a dinner meeting of the Washington County Medical Society, Friday evening, August 23, at the Hotel Lafayette, Marietta.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

The Annual Outing of the Hempstead Academy of Medicine was held at Portsmouth, Thursday, August 29. Golf, horseshoes, croquet and other entertainment was the program for the afternoon, followed by a chicken dinner. Dr. Dow Allard and Dr. Gilbert Micklethwaite were in

charge of arrangements.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

Dr. George B. Watson, Columbus, gave a very interesting talk on "Leg Ulcers and Varicose Veins", at a meeting of the Fayette County Medical Society, Thursday night, September 12, at Washington C. H.—James F. Wilson, M.D., secretary.

FRANKLIN

The following programs were presented by the Columbus Academy of Medicine during September:

September 9—"Everyday Kidney Problems". (1) "Relation to Hemorrhage", Dr. Albert B. Landrum, Dr. Milton E. Jones and Dr. Harley O. Bratton; (2) "Relation to Pregnancy", Dr. Frank W. Harrah and Dr. John E. Hoberg; (3) "Relation to Abdominal Pain", Dr. Wm. N. Taylor and Dr. Louis J. Roth. At the close of the meeting, a buffet supper was served through the courtesy of the Columbus Pharmacal Company.

September 23—"The Curability of Cancer of the Stomach", Dr. Wm. B. Morrison; discussants, Dr. Verne A. Dodd, Dr. Phillip T. Knies, Dr. Harry L. Reinhart and Dr. James H. Warren. Refreshments were served by the Wendt-Bristol Company at the close of the program.—Bulletin.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

HURON

Dr. Victor C. Laughlin, Cleveland, spoke on "Urological Diagnosis in General Practice", at a meeting of the Huron County Medical Society, Wednesday evening, September 11, at Memorial Hospital, Norwalk.—News clipping.

LORAIN

The meeting of the Lorain County Medical So-

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ciety, at the Spring Valley Country Club, Lorain, on September 10 was designated "Old-Timers' Day" to do honor to those members of the society who had practiced 45 years or more, there being six members in this category. These six are Dr. Geo. E. French, Elyria, with 52 years service; Dr. A. S. McKitrick, Elyria, likewise with 52 years service; Dr. Frank B. Gregg, Wellington, with 48 years; Dr. Geo. C. Jameson, Oberlin, with 47 years; Dr. O. B. Monosmith, Lorain, with 46 years. In addition, two former members were paid tribute, the dean of Lorain practitioners, Dr. Jay C. Mead, Lorain, with 57 years of service, and Dr. E. V. Hug, Lorain, with 47 years. Of these eight, present were Dr. McKitrick, Dr. Jameson, and Dr. Wheatley. Dr. McKitrick read a paper on "Cardiospasm", and Dr. Wheatley and Dr. Jameson spoke on the early days of practice, hospital service and county society history, giving their personal flavor to their remarks. Dr. Monosmith addressed a letter to the society, covering the same topics in a humorous, philosophical vein.

The society then proceeded to vote Dr. Mead an honorary membership in the society, and to vote Dr. French and Dr. McKitrick each a certificate of service to be properly engrossed. It is

planned to present a similar certificate to each member as he reaches 50 years of practice.

During the regular business session, various organizational matters were considered. A committee with Dr. Taylor Smith, chairman, was appointed to meet with the county delegate, Mrs. C. R. Meek, for the purpose of drawing plans for a County Woman's Auxiliary. A committee on Medical Preparedness was appointed. Dr. L. H. Trufant, Oberlin, heads this committee. The report of the Committee on Tuberculosis Study was presented by Dr. A. C. Siddall, Oberlin, recommending approval of a plan of the County Tuberculosis Seal Association for the use of a portable fluoroscope. This report was accepted. Dr. John T. Fawcett, Elyria, reported on the meeting of the Eleventh District at Leroy, August 28.

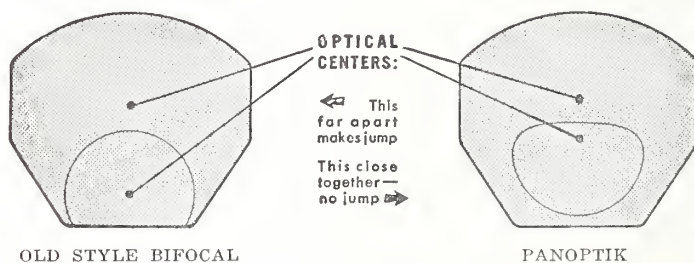
This Old-Timers meeting obtained much favorable publicity in the Lorain press.—I. L. Levin, M.D., secretary.

RICHLAND

A business meeting of the Richland County Medical Society, Thursday, September 12, was devoted to a discussion of a number of important organization matters.—L. D. Bonar, M.D., secretary.

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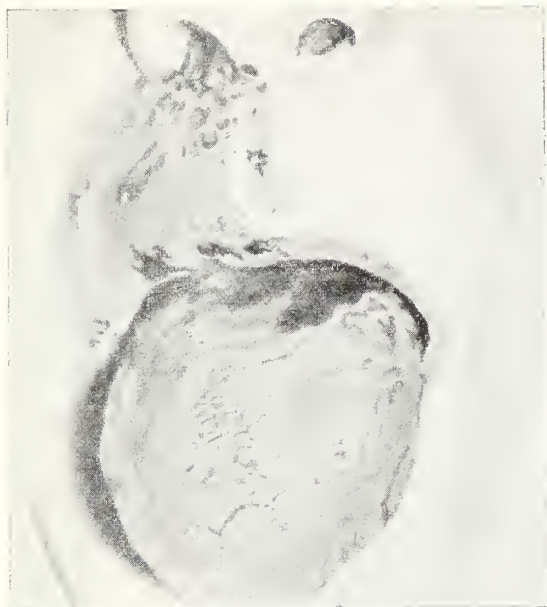
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STUDIES IN THE AVITAMINOSES



This page is the tenth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the September 14 issue of The Journal of the American Medical Association.



Photograph courtesy of C. P. Rhoads, M. D., Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York City.

The Dermatitis of PELLAGRA

The skin lesions of pellagra are considered one of the diagnostic signs; they are seen on the hands, neck, under the breasts, on the perineum, and on the legs. They usually are bilateral and are sharply demarcated from the surrounding normal skin. At first the involved area becomes erythematous and tender, resembling a mild sunburn. The skin is tense and swollen; itching and burning may be severe. At this stage vesicles or bullae frequently appear. After a period of weeks or months, the edema subsides, the erythema disappears, and the involved skin may assume a more normal appearance. Residual pigmentation persists, however, especially about the hair follicles.

The Glossitis of PELLAGRA

The glossitis of pellagra is usually among the early symptoms. It is manifested initially by hyperesthesia, which frequently develops before objective signs. As the deficiency state becomes more pronounced, desquamation of the superficial epithelium gives the tongue a beefy red, smooth, dry appearance. During desquamation, secondary infection with Vincent's organisms or Monilia frequently occurs, producing a thick white or yellow coating which ultimately is shed. The tongue becomes swollen, and fissures and aphthous ulcers develop on its surface. The inflammatory process spreads to the buccal mucosa, the gums, the lips and the pharynx, producing superficial ulcerations in these areas.

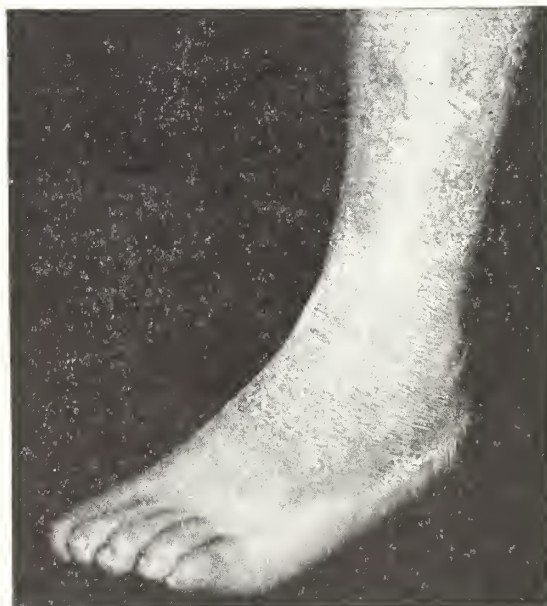


Illustration courtesy of Henry Field, Jr., University of Michigan Medical School, Ann Arbor.



Fine Program Presented at Meeting of Fifth District at Ashtabula

Approximately 60 physicians attended a meeting of the Fifth Councilor District of the Ohio State Medical Association, comprising Ashtabula, Cuyahoga, Geauga and Lake counties, at the Hotel Ashtabula, Ashtabula, Wednesday, September 11.

The afternoon session began at 5 o'clock with an address by Dr. G. Keith Folger, Cleveland, on "Treatment of Dysmenorrhea". Other talks at this session were: "Surgical Drainage", by Dr. Wm. C. McCally, Cleveland, and "Chemotherapy of Streptococcic Infections", by Dr. Curtis F. Garvin, Cleveland.

Activities of the State Association were discussed briefly by the President, Dr. Wm. M. Skipp, Youngstown, at the dinner session. Dr. John E. Rauschkolb, Cleveland, a member of the Committee on Medical Service Plans, spoke on the proposed Enabling Act, and Dr. Harry V. Paryzek, Cleveland, the President-Elect, in a talk on medical preparedness, urged members who had not yet done so to return their questionnaires to the American Medical Association immediately.

Speakers at the evening session were: Dr. Harold Feil, "Treatment of the Acute Heart Attack", and Dr. Robert F. Parker, "Modern Treatment of Pneumonia".

The program for this successful meeting was arranged by Dr. Edgar P. McNamee, Cleveland, Councilor for the Fifth District, and Dr. Joseph M. Hayman, Jr., Cleveland. Local arrangements were in charge of Dr. Perry R. Longaker and Dr. Clarence T. Risley, Conneaut, president and secretary, respectively, of the Ashtabula County Medical Society.

E. E. N. T. Specialists To Meet In Cleveland, October 6-12

The Forty-Fifth Annual Convention of The American Academy of Ophthalmology and Otolaryngology will be held at the Hotel Cleveland, Cleveland, October 6-11. The scientific program includes scientific sessions, special courses, exhibits and motion pictures. Dr. A. D. Ruedemann is general chairman.

Ohio physicians appearing on the program include: Dr. Secord H. Large, Cleveland, guest of honor; Dr. Justin M. Waugh, Dr. C. C. Roe Jack-

son, Dr. E. W. Netherton, Dr. J. Warrick Thomas, Dr. E. Perry McCullagh, Dr. C. W. Engler, Dr. Fred W. Dixon, Dr. H. S. Reichle, Dr. Wm. E. Bruner, Dr. Paul G. Moore, Dr. Paul M. Moore, Jr., Dr. Ruedemann, Cleveland; Dr. Derrick T. Vail, Dr. Albert L. Brown, Dr. Henry M. Goodyear, Dr. Mary K. Asbury, Dr. Donald J. Lyle, Cincinnati.

Immediately following the Academy meeting, the first Pan-American Congress of Ophthalmology will be held, bringing together a large group of the eye specialists of the Western Hemisphere. The scientific program for the Congress will occupy two days, Friday and Saturday, October 11 and 12.

Dr. Fishbein To Speak at Inaugural Ceremonies for President Bevis

Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, is one of the nationally prominent figures who has been invited to participate in the inaugural exercises for Dr. Howard W. Bevis, new president of Ohio State University, in Columbus, Thursday, October 24.

Dr. Fishbein and Roscoe Pound, Dean Emeritus of the Harvard Law School, will take part in a joint discussion of "The Relation of the University to the Professions," which will be one section of the general program devoted to the theme, "Social Responsibilities of the University". Chief Justice Carl V. Weygandt, of the Ohio Supreme Court, will preside at this session.

Harvard University's President Conant will deliver the inaugural address. Other educational leaders from throughout the United States will be present to discuss the University's relationship to the various fields of human endeavor such as agriculture, industry, the social services, and humane living. Sessions of the exercises will be open to the public.

Ohio's population gain of 242,926 for the last decade is the smallest ten-year increase the State has experienced in 130 years. According to the 1940 census Ohio has a population of 6,889,623, a gain of 3.7 per cent for the last ten years, which is 2.6 per cent under the national increase. Population of the United States is 131,409,881.

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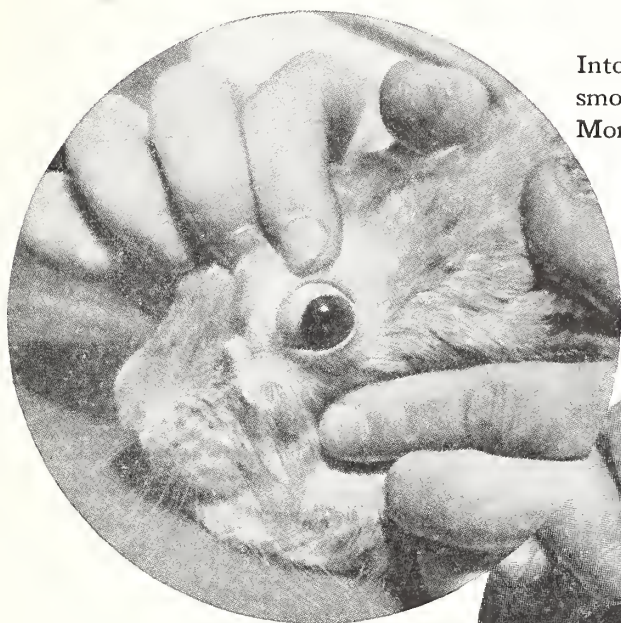
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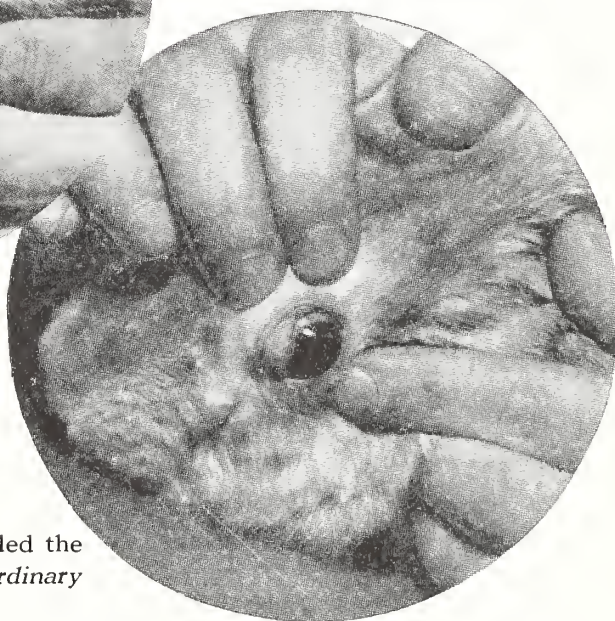
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The Physician's Bookshelf

Doctors in Shirt Sleeves. Musings on Hobbies, Meals, Patients, Sport, and Philosophy, edited by Sir Henry Bashford (*Veritas Press, New York*; \$2.50), covers a wide range of essays, such as youth, country patients, the poor physician, too much prevention, etc., etc. For the physician who wishes to muse as he reads this book will be most welcome.

Proceedings of the 33rd Annual Convention of the Association of Life Insurance Presidents. (*The Association, 165 Broadway, New York*), is an excellent statement by experts on mobilizing for security through industrial enterprise.

Ten Years in the Congo, by W. E. Davis (*Reynal and Hitchcock, New York*; \$2.50), is a new kind of African story. It is the story of Dr. Davis' work in the Belgian Congo. All who like adventure and travel will like this biography, and what Doctor of Medicine doesn't?

Some Gleanings From Life, by Robert E. Truhlar (*Christopher Publishing House, Boston*; \$2.00), is comprised of 21 consoling essays. One on Physicians makes a good case for Andrew Taylor Still.

Diabetes, by Edward L. Bortz, M.D. (2nd Edition; *F. A. Davis, Philadelphia*; \$2.50), is a book of practical suggestions for the physician and his patient. The first edition was highly praised by many reviewers for the new and simple methods of measuring which it introduced. The chapter on Insulin has been entirely rewritten. The use of expensive food is discouraged and the dietary control made as easy and simple as it can be.

The March of Medicine, New York Academy of Medicine's Lectures to the Laity, No. IV (*Columbia Press, New York*; \$2.00), contains the same high standards of previous volumes. Alvarez, Larkey, Drinker, Heyd, Hoskins and Menninger are the authors of various chapters. The books should be read by all who wish to know how medicine has kept pace with and contributed to modern living.

Operative Surgery, by J. Shelton Horsley, M.D. (two volumes; *C. V. Mosby Company, St. Louis*; \$18.00), continues to be a popular work as this fifth edition testifies. Many new operations and new chapters have been added this time. One hundred and eighty-three new illustrations add much of value. Dr. Horsley and his associates are to be congratulated upon this text of operative surgery.

Sleep and Rheumatism, by J. I. Rodale (*Rodale Press, Emmaus, Pa.*; \$1.50), is the experience of a well known author and editor with a neuritis which he believes to have been due to faulty posture in sleep.

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News Notes

Ashtabula—Dr. Charles C. Crosby has been appointed health commissioner of Ashtabula County, succeeding Dr. J. L. Hurst who resigned August 5 after five years of service in that post.

Barberton—Dr. Norman F. Rodenbaugh, oldest practicing physician here, fractured his hip in a fall at his home August 18.

Bellefontaine—Dr. Robert H. Butler is treasurer of the Amateur Trapshooting Association, which held its national competition recently at Vandalia.

Celina—Construction has begun on a 12-room addition to Gibbons Hospital.

Cincinnati—A \$5,000 bequest to Children's Hospital was provided in the will of the late Miss Ellen B. Jackson.

Cleveland—Dr. Victor C. Laughlin spoke on "Leukoplakia of the Urinary Tract", at the annual meeting of the North Central Branch of the American Urological Association, September 27, at Milwaukee, Wis.

Columbus—Dr. William E. DeVol, with his wife and three-year-old twin daughters, left August 19 to reopen an American hospital founded 40 years ago by his parents, the late Dr. and Mrs. George DeVol.

Dupont—Dr. E. H. Bird, practicing physician for 53 years, announced his retirement from active practice October 1.

Millersburg—Trustees of Pomerene Memorial Hospital passed a resolution asking that a one-mill levy be placed on the November ballots for proposed hospital improvements estimated to cost approximately \$20,000.

Port Clinton—The new Magruder Memorial Hospital, a 53-bed institution, made possible by a \$250,000 gift from the late Mr. and Mrs. Howard B. Magruder, was officially opened August 25. Dr. C. R. Woods, secretary of the staff, discussed some of the features of the hospital at a recent meeting of the Gateway Club.

Tuscarawas—Dr. E. R. Hammersley, a member of the Naval Medical Reserve Corps for several years, is now on active service at the Naval Hospital, Newport, R. I. During his absence, his practice will be taken care of by Dr. C. M. Ceramella, New Philadelphia.

West Bedford—Dr. W. B. Litten recently celebrated the completion of 60 years in the practice of medicine.

Zanesville—Dr. Edmund R. Brush, a member of the Committee on Medical Preparedness of the Ohio State Medical Association, recently addressed the Kiwanis Club on the part the medical profession will play in the national defense program.

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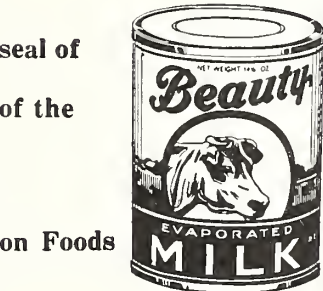
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Facts and Fiction About Our State Hospitals

WINFRED OVERHOLSER, M.D.

MENTAL disease, under one name or another, has been known to the human race from the dawn of recorded history. Stories of the grass-eating episode of King Nebuchadnezzar, of the homicidal furies of King Saul, and the conveniently feigned madness by which King David on one occasion at least saved his life, are found in the relatively early portions of the Old Testament; and to refer again to the Bible, we may bear in mind the incident of the miracle of the Gadarene swine in which Jesus is reported to have cast the devils out of a mentally deranged man. It will be remembered that the devils are reported to have received permission from Jesus to enter into the bodies of some pigs, which thereupon developed symptoms of an acute mental disorder. Similar references are found in the rather early writings of the Greeks, and in the time of Hippocrates some steps were taken towards the treatment of mental disorder. This idea of possession by demons persisted from the time of Christ until a fairly modern period, and it was this belief which accounted for a large part of the witchcraft trials and executions which were all too common even into the eighteenth century. Although, as we have said, the Greeks did recognize these persons as sick people, such an enlightened attitude was clouded over by the belief in demoniacal possession so that until extremely recent times the history of the care of the mentally ill is rather one of neglect, abuse, and cruelty, than anything savoring of the humane. Although the Bethlem Hospital, an institution which added the word "Bedlam" to the English language, was established in the late

The Author

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Middle Ages and had one or two companions for a few hundred years, there was no general attempt to establish institutions for the care of this unfortunate class of persons until about the time of the American Revolution. In the late eighteenth century we find an increasing emphasis on the rights of man, a move which led ultimately not only to the American Revolution, but the French Revolution as well, and which was accompanied in part by an increasing attention to the care of the dependent and unfortunate.

Although unquestionably the motives of those who were caring for what were then known as the paupers, the lunatics, and the other dependent classes were excellent, the care which was given was far from the standards which exist today. The first institution in this country for the care of the mentally ill was established in Philadelphia in 1752, and the first public institution in Williamsburg, Virginia, in 1773, just before the dawn of the American Revolution. These institutions were very far from our idea of a modern state hospital, but before their establishment the lot of the luckless mental patient was far worse.

Presented at a public meeting held under the auspices of the American Psychiatric Association and other medical societies at Cincinnati, Ohio, May 20, 1940.

If his conduct was not too alarming he was cared for at home or was allowed to roam about at will. If, however, he was what was termed "furiously mad" he might be cast into jail, where a prevalent belief that the mentally ill were immune to the effects of cold might well account for his having no heat and likewise very likely account for his death from frostbite. The food provided was inadequate, conditions of filth were permitted to exist, restraint was freely used in the form of handcuffs, iron collars, leg irons, and so on. Occasionally a kennel, as it might well be termed, might be built, in which the poor "lunatic", as he was then called, would be confined, sometimes for years.

In some of the New England towns a very thrifty habit of "warning out" the mentally ill prevailed. If a mental patient were found within the precincts of a town he would be driven on to the next town, there to meet the same fate. On the continent moves were made as early as 1774 to abolish the extensive use of restraint, such as I have just described, and the names of Pinel, the French physician, and Tuke, the founder of the York Retreat in England, are immortal on this account. Their example was rather slow in spreading to this country, for as late as 1844 we find in the records of what is now the American Psychiatric Association the adoption of resolutions in opposition to the abolition of mechanical restraint in hospitals! Benjamin Rush, one of the signers of the Declaration of Independence, who was probably the most enlightened physician of his time in this country, advocated in 1812 the use of blood-letting, purging, and the administration of emetics, as well as the more modern and advanced methods of baths, exercise, occupation, and music. He even advocated the "fear of death" as a proper treatment and said, "By the use of these mild and terrifying modes of punishments chains will seldom, and the whip never, be required to govern mad people." As late as 1822 it was the custom to charge a fee at the Pennsylvania Hospital for the privilege of viewing the patients, a practice which had long been in vogue in other "asylums" but which, needless to say, has been extinct for many years.

The conditions which existed as late as the early 1840's when Dorothea Lynde Dix started on her memorable campaign, were so atrocious that her description of them found in the memorials which she submitted to the legislatures of several of the American states, seems almost incredible to us at the present time. At the time Miss Dix began her remarkable work, South Carolina, Massachusetts and New York were the only states, in addition to Virginia, to have public mental hospitals. Fired by her humanitarian

spirit and by the shocking conditions which she had unearthed, Miss Dix almost single-handed was directly responsible for the founding or enlargement of at least 32 public mental hospitals in this country, Canada, and the British Isles. She is certainly to be numbered among the two or three of the greatest American women of the nineteenth century. It is gratifying to note that she has been nominated for the Hall of Fame, and those who are interested in the welfare of the mentally ill earnestly hope that she may be one of those elected this year.

HOSPITAL POPULATION

By 1870 there were 50 public and 16 private hospitals, with a population of about 17,000 patients and about 10,000 annual admissions. A very definite attempt was being made by this time to give the most humane care, although the idea of treatment was a decidedly nebulous one. The institutions were at that time essentially asylums, and most of them were known by that name; that is, they were places of refuge, receptacles, institutions for custodial care, but not places for active treatment. Little was done in keeping records, and such changes as were brought about in the condition of the patient were largely due to the passage of time rather than to any intensive therapeutic efforts.

Since 1870 many changes have taken place, and these not only in the line of size, although from a merely statistical point of view the changes have been striking as well. The 1937 census, for example, gives figures regarding 174 state hospitals, 2 federal hospitals, 26 Veterans Administration hospitals, 65 county and city hospitals, 211 private hospitals, and 7 psychopathic hospitals. At least 41 other private institutions failed to make the returns requested by the census. In other words, we have well over 500 mental institutions in this country with a population of over 484,000, and with an annual admission rate of about 156,000. In the state hospitals alone the population at the beginning of the year 1937 was 411,814, with 106,449 admissions, 52,377 discharges, and 32,752 deaths. The actual cost of maintaining the state hospitals in 1937 was \$104,473,000, disregarding entirely the cost of permanent construction or the interest on the investment. The loss to the community in earning power of the patients is, of course, incapable of estimate. I cite these figures to emphasize the fact that a tremendous number of persons are cared for in our state hospitals and that the economic as well as the social and medical problems involved are of great magnitude. It is a fact, indeed, that over one-half of the hospital beds in the entire country are to be found in the mental hospitals—a fact which in itself indicates the almost staggering size of the problem. Figures alone, however, fail to convey the entire

picture; indeed, they are a small part of it, yet they have their significance.

At the beginning of the present century most of the institutions, as we have already intimated, were essentially custodial. At that time Kraepelin, an eminent German psychiatrist who died only recently, proposed a new classification of mental diseases based upon close clinical studies. He emphasized the importance of the life history of the patient and the necessity of considering physical as well as social and emotional factors in the causation of his disorder. There is little question that it was Kraepelin who started the newer attitude in the mental institutions in the country. At about the same time Sigmund Freud of Vienna was carrying on his studies on the mental mechanisms of the psychoses with results which are today, whether admittedly or not, a part of the armamentarium of every psychiatrist. He did more than any other one man to explain what the patient is attempting by his peculiar conduct and words to express, and he gave an added impetus to psychotherapy, toward an active attempt to readjust the patient.

At the same time the knowledge of the infections and their methods of transmission and treatment were being carried on, the science of nutrition was at least being born, and an increasing number of hospital administrators were taking advantage of the various additions to knowledge, were abandoning the custodial attitude and adopting the more hopeful and encouraging one of active treatment. The doctrines of non-restraint which had long been preached on the continent and in England began to take a genuine grip upon hospital administrators in this country, and it was found that the peace and safety of the institution and the community were far from being imperiled when restraint and seclusion were displaced by occupation, exercise, hydrotherapy, recreation, proper classification and the various psychotherapeutic approaches. The day of the asylum was past and that of the hospital was dawning.

By 1915 nearly all of the state institutions had abandoned the name "asylum", of unhappy memory, and had become hospitals. It is sometimes alleged that there is no difference in a name, that an asylum is an asylum whether it is called a hospital or not. Such an allegation violates the facts of every-day experience. The fact remains that the word "asylum" had come to connote a place of hopelessness, an institution over whose door might well be inscribed the words found at the entrance to Dante's *Inferno*, whereas a hospital was a place where sick people go to be treated. The very sound of the word suggests hopefulness, or at least an attempt to do something for the patient—the very atmosphere is changed when an institution is called a

hospital, and those working there are imbued with a desire to do something constructive for the patient.

The last 25 years, too, have seen a decided development of social work, and the social worker has become an important cog in the mental hospital machine. When it was recognized that mental disease did not just happen, but that it had its roots in social situations, in family problems, in problems of adjustment to work and social needs, the social worker became an important feature not only in presenting the situation which had led up to the break of the individual, but in aiding to re-establish and rehabilitate him in the community upon his release. The function of social work in breaking down the barriers between the hospital and the community has been another noteworthy contribution.

IMPROVED STANDARDS OF MENTAL HOSPITALS

The American Psychiatric Association is the oldest national medical society in the country, having been established in 1844; one of its purposes then was the improvement of standards of mental hospitals, particularly public mental hospitals, and this purpose has been cherished during the 96 years of the Association's existence. Needless to say, as time has passed, standards have changed, and they are constantly being raised and improved. In 1936 the Association, in conjunction with the National Committee for Mental Hygiene, the American Medical Association, the U. S. Public Health Service, and a number of other medical groups, established the Mental Hospital Survey Committee for the purpose, as the name implies, of making actual inspections and surveys of mental hospitals. Since the funds under which the committee operated have been exhausted, the U. S. Public Health Service has been continuing the work of the committee.

So far actual inspections and studies have been made on the ground in 174 institutions, located in 46 states. These inspections have been made by trained psychiatrists not connected with the institutions which they were examining, and it may be added that they approached the task with a critical eye. Most of these examinations were made upon the request of the superintendents of the hospitals, or of the governors of the states, who were desirous of knowing in what respect the standards of care in their institutions could be improved. It will thus readily be gathered that there is a mass of authoritative material regarding the actual conditions which exist in a large number of public mental hospitals throughout the country. These studies have shown that not all institutions carry out the highest aims and purposes. There are many discrepancies in the care of the mentally ill, some of which are demonstrable statistically and

others as the result of investigation by trained observers.

In spite of the fact that a serious effort has been made to obtain the facts for constructive purposes, mental hospitals are still considered fair game by sensational writers. Only recently a series of sensationally written articles appeared in a magazine of national circulation which has long been known as publishing high-grade fiction. Presumably the author could not have sold his series had he not written it in a sensational manner, but the absence of fairness and the misstatements, unintentional or otherwise, of facts which are clearly demonstrable, are readily apparent to anyone familiar with the true situation. I trust that the author will feel that he has accomplished his purpose if he knows the reaction that one heartbroken father expressed to one of my friends. Speaking of his daughter who is mentally ill, he wrote, "I would rather follow her to her grave than see her go into a state institution like the ones I have been reading about in some of the magazines." I have no doubt that many a relative of some patient in a mental hospital read the series with similar misgivings, and was led to doubt whether his loved one was being properly treated.

To be sure, in any institution conditions exist with which to find fault, but that is far different from saying that everything is wrong. It has often been said that an equivocation is worse than a lie, and when the unusual, the exceptional, is made to appear the rule, probably more harm is done than if the allegations were made up entirely out of the whole cloth. Some of the statements which were made in this series (and I take this series of articles as illustrating the sort of approach which the unthinking layman may make) are possibly worthy of correction, but what is more to the point, an attempt may be made in a few words to paint in some of the large blank spaces in the picture which has been drawn by the writer.

OVERCROWDING

We are told that the mental institutions of the country are "overcrowded 50, 60 and 70 per cent." According to the United States census in 1937, only one state, namely Rhode Island, reported a crowding of over 50 per cent, namely 59, and Kentucky reported a crowding of 43 per cent. Both in these states and in many others in the past few years through arrangements with the Public Works Administration, extensive building programs have been undertaken, so that the situation both in the states named and in many others has been relieved. Even in 1937 the average overcrowding for the United States was only 10.9 per cent—certainly a far cry from the allegation made! We are told that some of the institutions are "madhouses," and are given the

impression very definitely that the use of handcuffs and of cages is common. As a matter of fact, there are institutions where one or two pairs of handcuffs might be found, as well perhaps as what are euphemistically known as "muffs". In other words, in a considerable number of hospitals it is a fact that handcuffs were found but it is not a fact that they would be used on any large numbers of patients. Needless to say, the practice is violently disapproved by psychiatrists, along with the use of the now practically obsolete "padded cell".

As for the statement that thousands of mental patients are cared for in jails, there is little doubt that this is an exaggeration. It is a fact that one large state at the present time has about 300 committed patients housed in jails because the hospitals are not adequate in size to receive them. This is, of course, indefensible, and it is likewise indefensible that mental patients should be cared for in jails even temporarily prior to their commitment. In those states where the law permits such improprieties, groups are at work at the present time in an attempt to secure adequate institutional facilities and to prohibit the jailing of mental patients.

One of the alarming statements made in the series to which I have alluded has to do with the physical abuse of patients. We are informed that the attendants are permitted to use clubs on the noisy patients, that patients are cuffed and abused. I do not hesitate to say that in no institution in the United States is abuse of patients knowingly tolerated by the authorities. From time to time some faithless attendant will strike a patient, but as a rule this sort of treatment calls for instant dismissal and in some instances results even in criminal prosecution. The writer, too, speaks with some surprise of the fact that in some institutions the guards, as he calls the attendants, are not permitted to carry clubs or weapons. As a matter of fact, the number of institutions in which such an antiquated and improper practice is permitted approaches zero, with the possible exception of a few institutions for the criminal insane. Intelligent treatment has been substituted for brute force, and this is most emphatically as it should be. A case is cited by this same writer in which he quotes a physician in one of the state institutions in a nearby state as having seen the attendants split patients' heads open, and of there being clubs used on every ward. The writer then goes on to state that this is still happening in "half the states." That is certainly not true. As for a statement that this same state has no hydrotherapy or occupational therapy—that is decidedly not the case at the present time and

presumably was not the case when he made his recent visit. The state to which he alludes in such disparaging terms, although its standards were extremely low not so long since, has in the past two or three years done perhaps more than any other state to elevate its standards.

TYPE OF POPULATION ENCOUNTERED

As for the writer's criticism of restraint and seclusion, that is, mechanical restraint of the free use of the patient's limbs and locking him in a single room, his strictures are along the right line, although again he is undoubtedly exaggerating. This is particularly true when he compares the state institutions with the private institutions. He completely neglects consideration of the fact that the private institution may select its patients carefully and that it usually declines to take those who are acutely disturbed. Furthermore, the state institution takes not only all comers, but even those who are of criminal propensities, some of them indeed having been sent from the prison.

The type of population encountered in the private hospital is in no way comparable with that found in the state hospital. It is, however, a fact that the amount of restraint and seclusion often reflects the inadequacy of personnel, something to which I shall allude later. As a sample of the fairness (or otherwise!) of the author, it may be pointed out that he takes a hypothetical case in which a woman residing on Park Avenue (presumably New York City) is sent to a private institution at the charge of \$200 a week, this being in a state in which voluntary admission is permitted. By contrast, he takes another patient in a state (unnamed) where jail care is allowed, where jury trials are required for commitment, where a large amount of restraint is used in the hospitals, and in which the clinical records and the standards of medical care are about as low as conceivable.

Obviously neither of these cases is typical. Again, he implies that in one state patients are actually kept after they have recovered because, forsooth, they are good workers! He is rather unfortunate in his selection of a state to cite in this regard, inasmuch as the state in question has an actual deficit of patients as compared with beds; in other words, here is a state which has actually sent out so many patients that there is underpopulation of its hospitals! The fact is, of course, that in every state hospital there are some patients whose condition is such that if ideal circumstances existed outside the institution they might be allowed to leave. Many of them, however, have no families, or the families are in such condition economically that they cannot afford to furnish the necessary supervision. Indeed, in some states the public welfare authorities have actually been known to threaten to

withdraw relief payments to a family if they permitted a relative in a hospital to come home—an action which is grossly inhumane. There are then in hospitals patients who to the casual observer seem well, but the notion that they are kept there because they are good workers is absurd.

The total failure of the author to grasp the fundamentals crops out repeatedly in his allegations. When he says that there has been "more retrogression than progress in psychiatry", he is attempting to delude not only himself but the public. Certainly anyone familiar with the development of mental hospitals in the last 50 years cannot fail to admit that much as there still exists room for progress, the progress already made has been startling indeed. He even cites two or three of the mental hospital surveys which I have mentioned previously, picking out carefully in each case the very worst feature and implying that this is typical. He mentions the fact, for instance, that in one state research had been discontinued; that in another the cattle are said to be better housed than the patients; that in one state a cage bed was in use (it is not in use at the present time); that in another state patients were not taken walking. All of the surveys mention points in which the care of patients could be improved, but there was no hospital cited that did not have its good points as well. Common fairness would have demanded that the writer pay some attention to the constructive side. When, however, he comments on the fact that in the Worcester State Hospital non-restraint had been tried for "a few months", he causes considerable amusement in those who are familiar with the facts. Massachusetts was one of the first states to have a non-restraint law, which was passed as a matter of fact nearly 30 years ago, and Worcester has been one of the outstanding institutions in the observance of this law. Rather than a few months, the non-restraint has been in vogue for almost 30 years, and in at least one Massachusetts hospital since even earlier.

Again he reaches the height of absurdity when he says that for this patient in the private hospital insulin and metrazol will not be used, and even goes on to say that no psychiatrist could be found by him who did not admit that insulin and metrazol were "inefficient" and "dangerous." As a matter of fact, many patients have gone to private mental hospitals and paid huge fees for the privilege of having these very treatments! Indeed, one of the criticisms of the public mental hospital (now less often heard than in the past) has been that it does not use insulin and metrazol so generally as do the private hospitals, and certainly there are many psychiatrists who are still strong adherents of the use of these therapies;

although enthusiasm is waning somewhat, they still excite much interest and are being extensively used in mental hospitals, public and private alike.

Some of the statements which I have already criticized involve matters of opinion. There are a few, however, which are matters of fact and which can readily be proved false. The statement that New York is the only state in which the ratio of physicians to patients is less than 1:200 is definitely incorrect. There are no less than 11 states in which one physician has an average of less than two hundred patients to care for. Again we are told that some states operate their mental hospitals on per capita costs of 50, 40 and 30 cents a day. This allegation touches upon the pocket nerve of the taxpayer and calls perhaps for a little attention. It is a fact that some states are allowed by their legislatures a painfully small amount of money on which to operate their state hospitals, and it is likewise the case that in these instances the care of the patients is bound to suffer. The average cost for the United States, according to the 1937 census, is \$284.74 a year per capita. Sixteen of the states are reported as spending less than \$200 per capita annually, and I regret to say that Ohio was among this number with a cost of \$189.43, nearly \$100 a year less than the average for the United States.

PER CAPITA COST OF CARE

There are 11 states which have a per capita cost of more than \$300 per year, a sum which is a bit closer to the proper minimum. If proper treatment is to be provided, and if an adequate attempt is made to restore patients to the community, the state must expect to pay the bill. In the long run such expenditures may be expected to be justified by shortened stays, and in any event these patients, as sick persons, are entitled to proper care. A recent editorial in the *Cleveland Plain Dealer*, in speaking of the rather extensive state hospital building program now under way in Ohio, spoke of the patients now being kept at private hospitals in Cuyahoga County at a cost of \$2.50 a day, and added that these would be transferred to state institutions where the maintenance cost is only 60 cents a day. The astonishing thing is not the cost of \$2.50 per day in the private hospitals, but the fact that the editorial seems proud of the fact that the cost in the state hospital is only 60 cents per day! Certainly by comparison with the rest of the country this situation is not a matter for pride.

As for other discrepancies between the states, some mention might be made of the extent to which facilities are utilized. Their extent is best understood by estimating the rate which the population of the hospitals bears to the general population of the state. The average for the

United States is 282.9 patients in state hospitals for every 100,000 of the general population. As we review the list of the states we find rather striking differences in the rate thus estimated. New York State, for example, has 500 per 100,000, and Massachusetts almost as many. Ohio is slightly below the average with 269 per 100,000, although there is no reason to believe that there are any fewer patients in need of mental hospital care in a large industrial state like Ohio than there would be in New York State. In some of the southern states we have some rather astonishingly low figures, such as, 168 and 172 per 100,000. Usually these low rates mean that mental patients are being cared for in almshouses or jails, or else that they must be cared for in their homes by reason of difficult commitment laws or by lack of facilities. In a few states another reason for a low rate may be a profound public distrust of the state hospital; it must be admitted that here and there such distrust has some justification.

I have already devoted some little time to the somewhat irresponsible allegations made in the series of magazine articles to which I referred earlier. I have taken only the most startling and most inaccurate statements to consider. One need not disagree entirely with the author, however, for with his remarks about the evil of politics in the administration of mental hospitals everyone who is interested in efficient hospital administration must be in agreement. Many of the hospitals, he tells us, are political footballs, and he even goes so far as to say that the state hospital system "generally" is today subject to gross political interference in the matter of appointments. It is a fact that there are states in which the medical and non-medical personnel alike may safely expect to be thrown out promptly with a change of administration at the State Capitol. It can readily be understood that a self-respecting physician or anyone seriously interested in this line of work is not likely to be attracted to such a state. Only recently, in a Southern state which generally prides itself upon its progressiveness, a 70-year-old general practitioner was appointed the superintendent of a state school for the feeble-minded!

APPOINTMENT OF SUPERINTENDENTS

In more than one instance general practitioners with strong political influence have been appointed superintendents of large and important mental hospitals, not on the basis of what they knew about mental diseases or the care of patients, but on the basis of how they or some member of their family voted or controls votes.

There are even states in which party "donations" are said to have been forced from employees of state hospitals, donations which were considered by the employees perhaps in the na-

ture of "job insurance." There are, however, fully 14 states which can be given a thoroughly clean bill of health as to hospital politics, and in at least half of the remaining states such political interference as exists is relatively mild or relatively infrequent. If we cannot truthfully say that the state hospital is "generally" under the domination of politics, it must be conceded that there is considerable truth in the statements made by the author of the article in question.

Psychiatry is a specialty of medicine that has progressed far in the past generation and is setting its standards ever higher and higher, not only in the care of the mentally ill in hospitals, but in the application of psychiatry to community problems, and problems of general medicine, as you have heard from those who have preceded me on this program. We are setting higher standards for the training of psychiatrists, and indeed in at least one state it is now required that any superintendent or commissioner appointed shall be a diplomate of the American Board of Psychiatry and Neurology, a qualifying board which certifies specialists only after stringent examination and after evidence has been submitted of adequate training as a specialist.

Properly trained personnel, ample in amount, and ample funds are required to operate mental hospitals properly. To secure these we need not only the active interest of the state legislatures, but the support of the public in seeing to it that proper care is given to the unfortunate patient in these institutions, and that security and adequate compensation are provided for those who work with these patients, as physicians, as nurses, and as attendants. It should be forbidden to care for mental patients in jails or in other receptacles than mental hospitals, and admission to the mental hospital should be made as simple as possible. Facilities commensurate with the demand, or nearly so at least, should be provided by the state. The present aim of psychiatry in institutions is to study the patient and to treat him by the best means available. Above all, it is required that in any event the patient shall be treated as a sick man, that is, shall be given the utmost in consideration, in sympathy, and in humane care.

OCCUPATIONAL THERAPY

The development of occupational therapy is one of the very significant trends in modern psychiatry. Hydrotherapy likewise is one of the bulwarks of treatment. Specific drug treatment is called for in some instances, and some institutions have excellent medical and surgical departments in which the various diseases and disorders of the physical body may be cared for adequately, for these are all-important in bring-

ing about restoration of the patient. Social work is playing an important part and must be developed further, not only as a means of providing further knowledge concerning an individual case, but in finding methods of restoring him to the community and in supervising him and aiding him in his rehabilitation. Social work can be of inestimable value in the development of the so-called "family care method" of supervising patients in the community, a method for which economic pressure is securing rather wide attention. Extramural activities in the lines of community clinics are extremely important, not only for the purpose of reaching cases early, but in educating the public in looking upon the mental hospital as just that rather than as an asylum or a place to be shunned. The campaign of public education must go on and an attempt must constantly be made to overcome the tremendous inertia, indifference, and almost, it may be said, superstition under which the public labors with regard to the mental hospital.

FUNDS NEEDED FOR FURTHER STUDIES

Funds must be made available and men must be trained to carry on further studies in the causation and the prevention of mental disease. In comparison with the large sums which are spent in the prevention of communicable disease and in research into the causes of cancer, for example, an astonishingly small amount has been spent upon research in mental disorder. Fortunately, large foundations like the Rockefeller Foundation are keenly aware of the importance of this, one of the greatest threats to humanity, and are providing funds for such studies. Mention may be made, too, of the generous activity of the Scottish Rite of the Northern Masonic Jurisdiction in endowing studies in dementia precox. This work must go on in increasing measure for the purpose of curing more patients and preventing more patients from entering the hospitals.

If the mental hospitals can be provided with adequate funds and can be kept free from the slimy hand of spoilsman politics, the psychiatrists of this country may be trusted to raise the standards of the mental hospitals even higher than they are at present. At present, however, the day of the asylum has passed; we have hospitals for the care of the mentally ill, a large number of which are eminently well handled and many more of which are at least of average standards. From the wide point of view, and with all the defects of the present system, the state hospitals of the country have made great progress, and with the help of the public they will progress even further in their mission of aiding those who suffer from "a mind diseased."

Diagnosis and Significance of Tuberculous Infection

JOHN H. SKAVLEM, M.D.

OUR judgment of the significance of tuberculous infection in a human is dependent upon our ability to diagnose the extent and character of the lesions produced by the infection plus our understanding of the pathogenesis of the disease. Your problem involves the application of this judgment in cases of supposedly healthy adults. The diagnosis in such cases is somewhat different than when examining the sick, but the application of the knowledge of pathogenesis is the same and probably more important.

With the implantation of the tubercle bacillus in the tissues of the body the pathological changes which immediately result vary with every individual. The lesions of pulmonary tuberculosis are extremely varied and comprehend practically every fundamental pathological process described. Tuberculosis can mean anything from a small nodule made up microscopically of giant cell caseation, epithelioid and lymphoid cells, to a whole lung which has become solid, or a lobe entirely honeycombed by cavities. The tissue changes of pulmonary tuberculosis involve exudation, proliferation, caseation, degeneration, necrosis, cavitation, liquefaction and repair. In attempting to explain why the pathological changes produced by the tubercle bacillus in different human hosts can be so extremely varied, many theories have been given and conditions pictured. The virulence of different strains of organisms has received exaggerated emphasis. The normal anatomy and physiology of all individuals at the time of infection gives partial explanation of the pathological changes following that infection, and this is added to by the more abstract reactions of immunity, allergy and resistance. Most striking in the difference of reactions are the changes wrought in the adult and the child. From the beginning of roentgen-ray studies the great differences between the films of the tuberculous child and the tuberculous adult were observed and described. In 1917 Opie discussed these differences from the viewpoint of pathology and postmortem findings, stressing the points of hypersensitiveness and immunity. Since then a mass of evidence has been accumulated to show that the differences observed between the child and adult are but the examples of reactions in a sensitized animal.

It has been repeatedly proved and generally

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known that the first subcutaneous injections of the tubercle bacillus in an animal cause only a slight lesion at the point of inoculation. Dissemination occurs by way of the lymphatics and the nearest lymph nodes undergo a violent reaction which may progress even to the point of suppuration and discharge. With a subsequent inoculation into the same animal, as when an animal suffering with tuberculosis is re-inoculated, there is an active reaction with neurosis at the site of the second inoculation and frequently a reaction will occur at the point of first inoculation which is much more severe than that caused by the first injection. This second lesion is not progressive, it tends to heal and no tuberculosis of the regional lymph nodes is produced. This is known as "Koch's phenomena."

Pulmonary tuberculosis of early childhood does not affect one part of the lung oftener than another. The lymph nodes at the hilum are invariably markedly involved and usually are the earliest and chief center of the disease. Jordan in examining the chests of children roentgenographically, found these earliest lesions at the hilum. By his pathological researches he proved that the nodes are much more extensively involved than the parenchyma of the lungs and that there is a peribronchial inflammation. Jordan believed in infection of the lungs from the hilum. Ghon recognized pathologically all that Jordan had seen on the X-ray plate and conclusively showed that tuberculosis of the tracheo-bronchial lymph nodes does not occur as the primary focus but is so frequently associated with a lesion in the lung substance that we may assume the invariable presence of the parenchymal focus. Roentgen-ray observations and pathological studies confirm Ghon's conclusions. The primary intrapulmonary lesion plus that produced in the hilum nodes has been termed the "primary complex" by Ranke.

Hilum tuberculosis in children with the old

From the Department of Medicine, University of Cincinnati and Hamilton County Tuberculosis Hospital.

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Ghon in the parenchyma has all the characteristics of first infection. Following the establishment of the primary complex the disease, especially in the young, may become generalized by the blood and terminate in meningitis. With the increasing age, however, there is a marked tendency for this primary stage to heal. Various stages in the process of healing may be seen in lungs of children who die from other causes. These lesions may be recognized as: (1) small caseous nodules encapsulated by fibrous tissue; (2) caseation encapsulated by calcium; (3) calcification with fibrosis. Post mortem examination of the lung may disclose only a few calcified nodules, whereas roentgen-ray films of the chest or lungs clearly show their distribution and number.

DIAGNOSIS

In the persons you are examining there are seldom symptoms, abnormal physical signs or clinical manifestations. Your problem is to detect evidence of infection and then by X-ray chest films study the lesions. The evidence of infection is given either by the tuberculin test or directly by the X-ray chest film.

TUBERCULIN

The tuberculin test in cattle and guinea pigs has proved practically 100 per cent accurate in its specificity. In humans, however, the accuracy is not proved so perfect. But tuberculin sensitivity in man can never be studied so thoroughly as in guinea pigs and cattle. Nevertheless it can be stated that the tuberculin test can be expected to be accurate in 90 to 95 per cent of the cases in seeking selection for examination by X-ray studies. And here tuberculin has its greatest value, namely in selection of cases for X-ray studies. But it has limitations and offers chances for mistakes even in this field. Investigations are continually demonstrating that there is great lack of correlation between the tuberculin reaction and the presence of X-ray findings that are indicative of tuberculous infection. This lack of correlation between the tuberculin reaction and the X-ray examination is most conspicuous in the cases showing X-ray evidence of healed calcified lesions of primary tuberculosis. This lack of correlation occurs in frequency varying from 20 to 45 per cent in different series in the hands of various observers. But this is not surprising. Failure of tuberculin reaction in the presence of calcified lesions is an old observation. Specific examples of cases showing calcification once positive to tuberculin and then showing decrease in the sensitivity or even anergy have been repeatedly recorded.

In attempting to divide humans into groups as regards tuberculous infection for study we must not think only of the two chief groups

infected and non-infected. We must consider five groups.

1. Non-infected.
2. Infected but not yet positive to tuberculin.
3. Infected and previously positive but now negative.
4. Infected and still positive.
5. Infected and never positive to tuberculin.

It takes two or three weeks for allergy to develop after infection takes place. It was pointed out long ago that X-ray evidence of development of primary tuberculous infiltration of the lung may precede the positive tuberculin reaction. But it is to be remembered that in making the X-ray diagnosis of primary tuberculous infiltration in the lung there is serious danger of error. This is discussed later.

The group representing those infected and previously positive, but now negative is most important and offers the greatest confusion. We must not overlook the fact that with the healing of tuberculous lesions allergy is lowered and finally may disappear. It has been shown that the stronger the original reaction the less frequently it disappears. Furthermore and more important is the fact that correlation with repeated exposures is most striking. In those positive cases where there is no family contact with open tuberculosis the reaction is more apt to be lowered or become negative while in those positive cases with contact the reaction remains positive. This indicates that reinfection is responsible for the maintenance of positive reaction. Indeed in many cases showing healed calcified foci of tuberculous infection the positive reaction may be due not because of the calcified lesions but because of later reinfection. With the decrease in possibilities of contacts the future may show that we shall see the loss of allergy in infected cases as commonly as we see maintenance of the allergy.

The group that are infected and never develop a positive reaction is so small that their status of existence may be challenged.

Tuberculin is of great value in its use of finding individuals infected with tuberculosis. Its accuracy in case finding programs remains 90 to 95 per cent. But as clinicians we must differentiate between the issue of existing infection and obsolete invasion by tubercle bacilli. We must as far as possible sort out from all those once infected, those that still harbor bacilli in lymph nodes or lungs with potential or real ability to multiply, grow and extend infection in the body.

X-RAY DIAGNOSIS

A. Primary infection.—Much has been written of late on the subject of childhood tuberculosis. Certain phases of the subject as to the significance of the infection remain a controversial question. The roentgen-ray evidence of this type

of infection, however, is well established. It is essential to keep in mind that the characteristics of childhood tuberculosis are those of primary infection. However, it is evident that the child may become reinfected and also that the primary infection may be delayed until adult life. As a result of modern methods of prevention more and more persons are reaching adult life before becoming infected with the tubercle bacillus, so that primary infection in the adult is being seen with greater frequency.

The lesions provided by the first infection type of disease varies greatly in size. When the dose of infection is small a Ghon lesion is produced. The focal lesion may be single or multiple. The usual course of events is for this lesion to become healed and calcified. When the primary focus develops in the lung, bacilli are carried to the regional lymph nodes along the bronchi and at the hilum. In these structures tuberculous lesions develop simultaneously with those in the lung, caseation and eventually calcification occurs. These focal lesions as seen on the X-ray films, consist of a small circumscribed area of density representing fibrosis, caseation or calcification out in the lung field, connected to the hilum by a heavy trunk. The hilum shadows are heavy, likewise showing areas of density representing fibrosis, caseation or calcification. Sometimes involved pulmonary lymph nodes may be seen along the bronchi.

At times, apparently when the dose is large, the focal lesion is much larger and produce such changes as to cast a shadow on the roentgen-ray films representing the greater portion or an entire lobe. This shadow is much larger than the original tuberculous lesion and the exact nature of this larger lesion is uncertain. It has been suggested it may be a non-tuberculous allergic reaction around the Ghon lesions. At this time the X-ray films show a massive homogeneous density representing exudate involving a part of, or an entire lobe. The regional hilum lymph nodes are enlarged and may or may not show caseation. The shadow in the lung gradually clears from the periphery until only the "primary complex" remains—a small calcified Ghon lesion connected to the hilum by a heavy trunk and calcified lymph nodes in the hilum.

There is grave danger of mistakes in diagnosis if we consider all childhood cases showing areas of exudate in the lungs and enlarged hilum lymph nodes as being tuberculous infection. We must condemn a diagnosis of tuberculosis from such findings, unsupported by other evidence. Acute infections involving the air passages and lungs can produce exudate in the lungs and enlarged lymph nodes in the hilum. Many such areas of pulmonary exudate clear up in a few weeks or months leaving behind no evidence of tuberculosis. If we were able accurately to

identify all caseous lymph nodes at the hilum our problem would be comparatively simple, but we are not able to do so. The proof of tuberculous infection is manifested on the X-ray films by the later development of calcification in the focal lesion and hilum lymph nodes. When areas of exudate are associated with caseo-calcareous lymph nodes in the hilum we believe they are always due to tuberculosis. The fibro-calcified focal lesions are found in the average adult chest and are usually apparently healed. They do not represent disease. They indicate tuberculous infection and some degree of immunity. The quantity or lack of calcium in the lung and hilum may roughly measure the degree or amount of infection the individual has suffered.

There is one density seen in the hilum which has special clinical significance. This is the caseo-calcareous lymph node. Upon the X-ray plate it has the density of caseation and calcium. It is usually quite large and may be very large. It can be seen to be made up of caseation surrounded by or containing small flakes of calcium rather than one large stone. These enlarged nodes may be located in the hilum, along the trachea or in the mediastinum. It may require lateral or oblique exposures to fully demonstrate them. A Ghon lesion is always present. On microscopic section of such lymph nodes removed at postmortem they are found to consist of soft caseous centers containing calcium and larger hard flakes of calcium on the periphery. Tubercle bacilli can be stained or cultured from these lymph nodes. In the chest such lesions should always be considered as unhealed and potential foci of tuberculous infection.

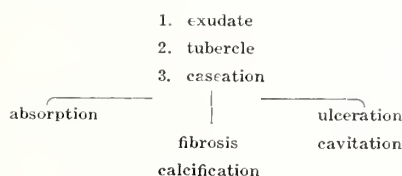
B. Secondary Infection.—This represents the reaction to infection in a sensitized individual. The great difference of reactions to the infection of tuberculosis in non-sensitized and sensitized individuals is as manifest in X-ray studies as it is in experimental work, or clinical observation. It is very evident, also, that the reaction of the body to tuberculous infection is subjected to wide variations depending on a number of factors of which the most important are the size of the dose and the immunity or allergy of the tissues. Hence we have different changes that occur in a sensitized individual. The following types of changes are described.

1. **Chronic fibroid.**—This is the commonest clinical form of tuberculosis. Most fortunately it is the form which lends itself to the most accurate diagnosis by X-ray studies. It can be stated that in this type of tuberculosis the X-ray study offers the means for the most accurate and complete diagnosis of any disease in clinical medicine. This is because of the distribution, localization, shape and progressive character of the lesions. It has decided predilection for the apices of the lungs. The lesions occur

out under the pleura. The pathological changes are a progressive dynamic process.

The first response to the implantation of the tubercle bacillus in allergic soil is outpouring of exudate. This mononuclear exudate, accompanied by proliferation of fixed tissue cells, leads to the characteristic microscopic picture of tubercle formation with giant cells, caseation, epithelioid cells and lymphocytes. From this point the disease progressed either to the reparative changes of fibrosis and calcification, or to the destructive changes of ulceration and cavitation. At any stage before the development of fibrous tissue proliferation, absorption of exudate can take place.

OUTLINE OF PATHOLOGICAL CHANGES OF ADULT APICAL TYPE PULMONARY TUBERCULOSIS



When an adult individual is in possession of the ordinary amount of allergy and resistance, any lesion of pulmonary tuberculosis usually tends toward healing. It is also true that the lesions of an adult type of the disease are the results of repeated infections either from without or within.

In general, the course of tuberculosis is apt to be intermittent with periods of exacerbation and remission, which correspond to recurrent discharges of infection. The pulmonary lesions of an adult type are the result of repeated infections either exogenous or endogenous. This leads to multiple lesions in the lungs in different stages of progressive and changing character. Each lesion produces a corresponding characteristic density on the X-ray film, depending upon the histological structure of the lesion, exudative, caseous, fibrotic or calcified. Thus on the films one may visualize densities of variable quality and by proper interpretation piece them together into the dynamic pathological picture of this type of pulmonary tuberculosis.

2. Tuberculosis caseous pneumonia.—When the dose is massive, when resistance is lacking or low, the disease assumes an acute form and the changes are very different. The result is that in place of the discrete lesions with apical localization, occurring beneath the pleura and showing varying densities, we have a more or less uniform pneumonic consolidation of one part of a lobe, of a whole lobe, or it may be of the whole lung. Cavities may be seen but there is no fibrous wall. The cavity seldom attains the great size which the chronic cavity may reach. The lymph nodes at the hilum and in the mediastinum are usually large and show marked caseation with no calcification. The areas of consolidation in the lung show no fibrous scar or calcification. There is no contraction of the ribs or interspaces over the lesion, the trachea remains in the midline, the mediastinum and heart are not dislocated, the diaphragm is not pulled up. In other words, there is no demonstration of healing by scar tissue such as we see in the adult apical type.

The densities in the X-ray films are those representing massive areas of consolidation by exudate and caseation.

This type of reaction occurs very commonly in the Negro, in aborigines and sometimes in dwellers in rural communities who are exposed for the first time to heavy infections. In the full blooded Negro we observe the truest type of this reaction. In the Negro with some white blood and especially in the mulatto we find more evidence of the reaction of the chronic fibroid type with fibrous scar and calcification.

This type of infection offers the greatest difficulty for accurate etiological diagnosis. A description of the localization and extent of the exudate can be made, but diagnosis can only be definitely established by finding the tubercle bacilli in the sputum. Such lesions observed in the Negro should always lead one to strongly suspect tuberculous caseous pneumonia. The X-ray study may suggest tuberculosis but the diagnosis must only be made by correlation with clinical and laboratory tests. These lesions may closely simulate unresolved pneumonia, bronchiectasis, hemorrhage, syphilis or malignant new growth.

3. Acute miliary tuberculosis.—X-ray studies are indispensable in the diagnosis of acute miliary tuberculosis. The picture is so characteristic as to require no lengthy description. The fine dot-like, even sized, millet seed-like densities of equal quality representing exudate distributed uniformly throughout both lungs makes a characteristic roentgen-ray picture which is easily recognized. Miliary tuberculosis is always a hemotogeneous reinfection from older foci. We find it associated with the chronic fibroid type in adults. In such cases the old apical lesions can also be recognized on the films. In children the focal type primary lesions can be seen in the lung and hilum or the primary focus can be found in some other part of the body. It need be remembered that occasionally there may be a time when a child has severe symptoms before the miliary tubercles have acquired sufficient size or density to be recognized on the film. Also it is quite possible to have very fine, widely distributed areas of caseous bronchopneumonia which may simulate the markings of miliary tuberculosis.

4. Chronic hemotogeneous pulmonary tuberculosis.—In contra distinction to the chronic fibroid adult, apical type of infection, which we believe is almost invariably due to reinfection of exogenous origin, we must consider and can recognize certain forms of hemotogeneous infection of endogenous origin from other organs and also post primary types. The spread of tuberculosis to the lungs from infection in other organs such as bones, urogenital system, skin or intestine is common knowledge. In spread to the lungs from other organs the lung lesions are recognized on the films as the miliary type; localized areas of caseous bronchopneumonia; diffuse bronchopneumonia or massive caseous pneumonia involving the greater part of a lobe and always with no evidence of old apical fibroid lesions. These caseous areas show no tendency to form fibroid scar and usually spread with cavity formation. The cavities show no fibrous tissue wall and frequently assume honeycomb-like destruction of the lobe.

The post primary types which represent reinfection of endogenous origin from the unhealed

primary forms are likely to be more chronic, with less symptoms and less serious clinical significance. All degrees of severity and extent of this post primary infection may be found. The dose of infection being small, the lesions in the lung consequently are small and are productive rather than exudative. Coming as they do by hemotogeneous distribution these lesions are apt to be bilateral and may lodge in any part of the lung, although they are particularly prone to persist and develop in the upper lobes. In the majority of cases they tend to develop fibrous scar and become calcified. Occasionally caseation may occur with the formation of small cavities. These cavities are thin walled and seem surrounded by normal lung tissues. Such cavities can change in shape, appear and disappear quite rapidly. As these blood borne disseminations are apt to occur in crops we may recognize lesions of varying size and age. It may be very difficult and more often impossible to state positively which of these lesions have occurred from endogenous or exogenous sources of infection. The question must still be asked: How much pulmonary tuberculosis in the adult is due to endogenous infection and how much is due to exogenous infection?

Chronic and healed miliary tuberculosis can be recognized. The X-ray picture is that of fine, sharp, discrete studdings of a quality of density representing fibrosis and calcification more or less evenly distributed throughout both lungs or both upper lobes. Very frequently these patients give absolutely no history suggesting any lung infection. Such lesions are frequently discovered in studying the chest of healthy individuals such as are examined in surveys of schools, industrial workers or communities. Such diffuse lesions located only by X-ray examinations in an individual apparently will have no greater clinical significance than is occasioned by the loss of lung function and lowered vital capacity. It has been our observation, however, that when broncho-pulmonary type of infection develops in such an individual either by the process itself breaking into a bronchus or by a superimposed new reinfection of exogenous origin that rapid spread with development of caseous bronchopneumonia and cavity takes place.

X-RAY STUDIES IN CONTROL OF TREATMENT

In the handling of pulmonary tuberculosis it can be most effectively applied when the character and extent of the pathology is accurately known. Serial stereoscopic X-ray chest films are permanent records of the dynamic pathological changes of the disease in the living subject. They can be studied, reviewed and compared so as to make a mental dissection of the progressive disease process in the lungs. First of all the question of activity must be settled. It may not always be possible to positively determine this point from the study of a single set of films. The question is settled by determining whether the lesions are in a state of activity with exudate, caseation and tissue destruction, or whether they exist in the reparation stage of fibrosis, calcification and contraction of scar. The densities seen on the X-ray films must be interpreted in terms of such pathological changes and thus the con-

clusion reached. In many cases the point is obvious. If exudate, caseation and cavity exists, the case is active. If all lesions exist in the state of fibrous scar and calcification the case is healed.

It is perfectly possible to have a case clinically arrested and yet be pathologically active. The patient may have no toxic manifestations and negative sputum and yet caseous bronchopneumonia be shown by roentgen-ray examination. Any case with cavity is necessarily active because such a patient may produce positive sputum at any time and is a constant source of infection to others or of reinfection by bronchogenic aspiration to themselves. There necessarily will be cases where the question of activity is undetermined from X-ray examination. It may be necessary to study a series of films taken over a period of time to determine whether the lesions are extending and showing tissue destruction or giving evidence of healing by contraction of scar and increased fibrous tissue and calcification. The final analysis of activity necessarily depends upon X-ray evidence, clinical and laboratory findings. But opinion as to the activity should always be included in the X-ray diagnosis.

Small apical infiltration may be present for months or years before symptoms or physical signs develop. In many instances the lesion becomes inactive and healed without treatment and without ever having been clinically manifest. Lesions with undoubted evidence of activity on X-ray chest films call for immediate cessation of school work and active treatment is indicated. If a lesion can be shown by serial X-ray chest films to have appeared within six months it must be considered as active. If the X-ray examination indicates questionable activity a period of bed rest for clinical observation and laboratory tests with repeated X-ray chest films in six or eight weeks should be given. When the X-ray chest study in a person without symptoms shows lesions indicating no exudate and predominately fibrosis partial restriction of physical activities is indicated. This means 10 to 12 hours in bed each night with a rest hour in the afternoon and extra rest on Sundays and holidays. Strenuous work and exercise or mental efforts to the point of fatigue are forbidden. Three good meals a day should be had with extra nourishment if underweight is present. This regime should likewise be given to those persons with uncalcified or partially calcified caseo-calcareous hilum lymph nodes. Such students should always room alone, not only for the protection of others but also so as to be able to be undisturbed in their daily program of rest.

Persons showing lesions well healed as evidenced by X-ray chest films showing fibrosis and calcification must be treated according to their functional respiratory disability. Complicating

emphysema and consequent reduction of respiratory function and vital capacity is very important. A minimal healed lesion with little or no disturbance of respiratory function may need no special restriction. Cases are found where the lesions are well healed according to all clinical and X-ray evidence but a small cavity may be demonstrated on the X-ray films. Such persons present one of the most difficult problems in the field of tuberculosis. As far as their own health is concerned they may possess enough immunity to hold the infection in check and live unsymptomatically for the normal expectancy of life. But the presence of a cavity, however small, always makes that person likely at any time to have positive sputum. The seriousness of the problem is that of infection for others. Such persons must room alone, always guard their sputum when they have any, and submit the specimens to repeated examination. If persistent positive sputum is found, active measures to close the cavity must be taken.

SPONTANEOUS PNEUMOTHORAX

Spontaneous pneumothorax is in the majority of instances not due to tuberculosis. Unless a definite tuberculous lung lesion is demonstrated a diagnosis of tuberculosis should not be made. If fluid develops the possibility of tuberculosis is suggested. Most cases call for little special treatment. Although the onset is usually dramatic and may be shocking the distress is easily controlled. If tension pneumothorax develops this is not true. Usually three or four weeks rest is ample to return the patient to sufficient comfort to return to work. The lung gradually fills out in three to six months.

PLEURISY WITH EFFUSION

Pleurisy with effusion unless definitely explained by other etiology must be considered of tuberculous origin. The characteristics of the fluid most common in tuberculosis is clear, straw colored, specific gravity 1.018 or over with cells predominantly lymphocytes. The fluid may be slightly bloody in the beginning but the blood cells get less as the disease progresses. Animal inoculation tests may prove the diagnosis of tuberculosis but are commonly negative. The prognosis is excellent if sufficient time of bed rest is given. Any case of pleurisy with effusion should have no less than six months rest with at least three months of this in bed. The great majority from 85 to 90 per cent clear up completely without the development of a lung lesion.

SUMMARY

1. Judgment of the significance of tuberculous infection in a human is based on a knowledge of the pathogenesis of tuberculosis and an ac-

curate diagnosis of the character and extent of the lesions.

2. Evidence of infection is given by the tuberculin test or X-ray chest films.

3. We must depend on X-ray studies of the chest to give us accurate diagnosis of the lesions.

Surgical Relief of Pain

Morphine is a very dangerous drug in states of disturbed consciousness, either irrational restlessness or stupor, for it then converts struggling consciousness into coma and seriously depresses an already embarrassed respiratory center. This applies particularly to head injuries where irrational restlessness is misinterpreted as due to pain, or it seems desirable to quiet a noisy and uncontrollable patient. It is much better for these patients to let them roll around in bed and be noisy than to put them out with morphine or any strong sedative and too often the head injury is blamed for the death when a hypodermic of morphine is directly responsible. Every neurologic surgeon has learned this great danger both in head injuries and brain tumors and morphine is prohibited in these cases. A few case illustrations may briefly be given: (1) a man four days after head injury and fractured femur continued to be slightly irrational and was given a hypodermic of morphine to start him on a long trip to a hospital. Four hours later he arrived in deep coma, cyanotic and temperature 106 degrees, apparently dying. Constricted pupils were noted, stimulants and elimination pushed vigorously, with beginning recovery after three hours, followed by complete recovery. (2) A young man with compound depressed skull fracture, repaired, continued extremely restless and noisy, disturbing the whole hospital. Warning was given against morphine but codeine and avertin sufficient to quiet him were tried with resultant cyanosis, high temperature and near death, but with satisfactory noisy recovery after one week's time. (3) A meningitis patient with screaming irrational restlessness was given one quarter grain of morphine without effect and this repeated, with coma, cyanosis and respiratory failure which required two hours of artificial respiration before morphine elimination restored the respiratory center and good recovery occurred. Similar effects of morphine in acute head injuries are more difficult to interpret but undoubtedly occur too often. Such patients need constant watching during the first 24 hours for early focal signs of intracranial hemorrhage which are concealed in the comatose patient with constricted pupils after morphine.—J. Jay Keegan, M.D., Omaha, Neb.; Jour. Ark. Med. Soc., Vol. XXXVII, No. 5, October, 1940.

Weariness without cause indicates disease.—Hippocrates.

Minor Discomforts of Pregnancy

FRANCIS W. DAVIS, M.D.

WE are all more or less familiar with the toxemias of pregnancy, and the theories on etiology and the pathological findings. As a result when seen they are recognized and vigorously treated, in the majority of cases with excellent results.

These conditions are seen, however, in a relatively small percentage of pregnancies, as compared with the minor discomforts which are present to some degree in practically every pregnancy. The day has passed when these complaints can be dismissed by saying "that goes along with a pregnancy" or "you have not had any pain yet".

By dissemination of information by the radio, movies, magazines and word of mouth these patients have come to know that many of their discomforts can be relieved, if not corrected. They not only demand that relief but they are entitled to it. Needless to say a negative attitude should not be assumed by the physician.

These discomforts may be physiological in origin, or of mental or physical derivation. They may be the result of deviation from the normal routines and may be caused by actual pain or by anxiety states.

In the solution of these problems, one must always remember that the patient has made a complaint for which no specific treatment may be available. The treatment will be based on the symptoms, their severity, the number of pregnancies, the past medical history, the social level, in fact, all of the things that make each patient an individual problem. It may be that sedation is indicated, possibly mild stimulation, or even suggestion as a form of treatment must not be discounted. Neither should the fact that a logical and understandable explanation of physiological and mechanical factors has its place be forgotten. Such explanation will in many cases fulfill the need, relieve the patient of anxiety and restore mental tranquility. Rarely a placebo will bring about the desired result.

NAUSEA AND VOMITING

Probably the most common discomfort of pregnancy is the nausea and vomiting of the first trimester. This condition is seen to some degree in 50 per cent of all pregnancies. In this paper it is the milder form that we are concerned with, not the pernicious type. Usually we find it present only in the morning, but it may occur at any time or throughout the day. There may be nausea alone or both nausea and vomiting.

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, May 14-16, 1940.

The Author

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I believe that even in its mildest form it should be considered pathological and representative of some maladjustment between the ovum and its host.

There are many theories as to its causation. The theory of neurotic origin has largely been discarded. The numerous other theories all seem to embrace the recognition of some disturbance in carbohydrate metabolism. I firmly believe there are other factors and changes in the maternal organism that will aggravate nausea and vomiting. It may be worry, loss of sleep, fear of impending labor or a complication therein, or even the financial aspects. Feminine gossip over the bridge table is responsible for much of this, especially in susceptible individuals. Lastly faulty elimination and resultant auto-intoxication may be the aggravating factor.

There is no specific line of treatment for the condition. Much might be done in a preventive way, but usually the opportunity for such treatment does not present itself. The patient presents herself when it is not a question of prevention but rather correction. Psychotherapy has its place but too much reliance should not be placed in it. Drugs have their place, not only for their suggestive value but for their actual therapeutic benefit as well. All of us have probably at one time or another used whole ovary or any of its derivatives, some solution of the adrenal or fraction thereof, or thyroid. We have cleansed the vaginal vault with ether or alcohol and painted the cervix with some antiseptic agent. Evidently good results were obtained in individual cases but we soon found out that none of these procedures was an universal panacea and so discarded them.

It is indeed a most unsatisfactory condition to treat and correct. The earlier it is seen the more easily it is controlled. An attenuation of the symptom complex is the usual result rather than its complete relief. Several fundamentals may be considered as the basis for its treatment. A carefully supervised diet is the most important procedure. All foci of infection should be removed if possible. All defects of elimination should be

corrected. An attempt should be made to allay any apprehension resulting from the pregnancy or in connection with the prospects of the ultimate outcome.

My best success has been attained by means of diet. This must be rich in carbohydrate. It should be in small and frequent feedings at from one to three hour intervals throughout the day, advising that fluid be avoided with solid food but taken one hour afterward. The more liquid the food is, the more likely it is to be vomited. These frequent feedings may be in part any type of candy although my preference is the so-called "after dinner mints". Here we get the stimulating effect of the peppermint oil plus the high dextrose content. Such a diet satisfies the carbohydrate need and also produces results by keeping food in the stomach. This absence of stomach content probably accounts for the unsuccessful results where sugar was used intravenously.

In a few individuals correction of faulty elimination has been followed by relief from the nausea and vomiting.

Rarely I have resorted to sedation. If so, the choice lays between small doses of phenobarbital ($\frac{1}{4}$ to $\frac{1}{2}$ grain) or a powder containing soda bicarbonate and magnesium sulphate in 15 grain amounts plus sodium bromide in the amount of 5 to 10 grains.

In this connection might be mentioned a question which frequently comes to the doctor's attention. I refer to the exaggerated or capricious appetite, a craving for certain foods which is sometimes seen. If it does not take the form of desire for the highly spiced and irritating foods probably no harm is done. Beneficent results may at times be obtained by the timely satisfaction of these desires.

HEARTBURN

Heartburn is also a common complaint during pregnancy and is usually seen during the latter months. It is due to the interference with normal peristalsis of the stomach and intestinal tract by the enlarged, gravid uterus. This interference causes retention of food within the stomach to the point that fermentation takes place with its resultant hyperacidity. Since it may be favored by some dietary indiscretion, the patient should be instructed to avoid acid drinks and rich or spiced foods. About all that can be done for the patient is to advise any dietary changes and the giving of any alkali, preferably a more stable one than soda bicarbonate. This may be given as it is required.

BOWEL FUNCTION

Bowel function is very frequently interfered with during a pregnancy. Improper bowel function naturally causes extra work for the other organs of elimination, especially the kidneys. The condition therefore should be considered as

favoring the development of toxemia if allowed to persist. The importance of maintaining normal bowel habit and avoiding constipation should be explained to the patient. It is for this reason that proper fluid intake and proper diet are necessary. The diet should be high in roughage and in fruits. Especially are such natural laxatives as pears, rhubarb, prunes and sauer-kraut efficient. Very efficient and quite tasty is a glass of two-thirds tomato juice and one third sauer-kraut juice. Frequently other mass producing agents such as agar-agar or psyllium are necessary. These should be used in the dry form as a flake or powder and not in an emulsion with mineral oil. Mineral oil, in my opinion, is many times the source of further intestinal difficulty. It has the power of giving the intestinal mucosa an oily coating, which not only may alter the process of digestion but most certainly interferes with the absorption of the digested food. Naturally if a laxative is used, it should be mild, such as milk of magnesia alone or combined with a small amount of cascara sagrada. My own choice is the bile-salt containing preparations or those of ketocholanic acid. As previously stated this latter procedure has many times also corrected nausea and vomiting.

THE BREAST

The breasts are the site of discomfort in many patients. As a result of the pregnancy we have first a prickly, tingling sensation, then a feeling of fullness or tightness and later by weight alone they may become uncomfortable. This discomfort is referred to the pectoral muscles. Since it is a mechanical disturbance, the only remedy is a mechanical appliance, a snug fitting and supporting brassiere which transfers the weight of the breasts from the pectoral muscles to the shoulders.

Many will remark or question early in their pregnancy whether the application of cocoa butter applied to the abdominal wall, the breasts and the thighs will avoid the occurrence of striae. Frankly I do not believe it will but I do believe that massage has its benefits. By such manipulation, circulation is stimulated and such things as a stretching of the sensory nerves producing a pruritus, or the feeling of tautness or pulling of the abdominal wall may be avoided. Therefore I do not discourage the procedure especially if the suggestion comes from the patient herself. The human skin is only untanned leather. A farmer uses oil on his harness to keep it soft and pliable. There may be value after all in the procedure.

URGENCY AND FREQUENCY

Frequent also are complaints referred to the bladder. These usually take the form of urgency and frequency. Burning on urination unless re-

sulting from skin irritation of the external genitalia or inner aspect of the thighs should be considered strongly suggestive of urethritis or cystitis. The complaints of urgency and frequency are easily understood but difficult to treat since they are largely mechanical matters. They manifest themselves during the latter half of the first trimester and the latter part of the last trimester. In the first trimester they are largely caused by the marked anteversion of the fundus which throws the cervix toward the hollow of the sacrum which in turn causes a stretching of the base of the bladder. In the last trimester pressure of the tumor of pregnancy is the causative factor. This tumor usurps the space usually present in which the bladder may expand as it fills and largely as a result of this we have these complaints. This explanation I find more easily understood by the patient and use it practically to the exclusion of the first. Usually the complaint is most remarked at night with the resulting nocturia. The only relief, since we do not wish to cut down the fluid intake is to advise the taking of fluids sparingly for the period of four hours preceding the hour of retiring. In the last trimester an abdominal girdle may assist during the waking hours.

In my own experience, a very frequent complaint, usually dating from the end of the first month of pregnancy is vaginal discharge. For the want of a better term and in the absence of any demonstrable specific organism, I have termed it "leucorrhea of pregnancy". It is my belief that it results from the congestive changes in the pelvis and reproductive system. We all know of those changes brought about by the concentration of estrogen within the body. We know of the pelvic congestion resulting from increased circulation which occurs during a pregnancy and manifests itself in part in the engorged and purplish vaginal mucosa. We know of the softening of the cervix with increased activity of the cervical glands. Is it not logical to assume that as a result of these changes we have a change in the normal reactions of the vaginal and cervical tracts? This means that the normal flora are existing in a changed environment and as a result may have lost their saprophytic characteristics and have developed certain pathogenic traits. That is a procedure that has been demonstrated in the test tubes of the bacteriological laboratories. This type of infection, for it must be considered an infection, practically immediately clears up on a daily soda bicarbonate or other alkaline douche. The fact that under such mild treatment it is corrected demonstrates that it is not one of the specific infections.

HEMORRHOIDS

Another very frequent complaint which may occur at any time throughout pregnancy, but

usually more prevalent and more painful during the last trimester, is hemorrhoids. They are due to the increased intra-abdominal pressure, coupled with or producing a stagnant venous circulation in the lower extremities and pelvis. They occur most often in women who give a history of constipation. If they do occur and correction of bowel function does not relieve them, then treatment should be symptomatic until after delivery. During this period any of the astringent suppositories, or those combined with one of the local anesthetics will usually give relief. Cold witch hazel compresses are of some help if applied with pressure over the anus immediately after a bowel movement. Finally, if the first shock can be tolerated, a piece of ice over the anus for some five or ten minutes will give relief for hours. It may be necessary to inject the hemorrhoidal masses, but this should be as a last resort.

SWELLING OF FEET

Many patients will ask the reason for their feet swelling in the latter weeks of pregnancy. In the absence of any pathology, you usually elicit the statement that this swelling is not present on arising but only in the evening. The patient's mind is usually relieved by the explanation that it is a mechanical affair, the result of intra-abdominal pressure obstructing the venous flow. Of course as a further result of this stagnation of circulation we have a higher sodium ion concentration which is conducive to edema. If it is too marked it may be necessary to put the patient on "light duty". Along this line I have had several patients remarking this edema of the feet and ankles in the evening and on arising in the morning, its disappearance, but complaining that their hands are swollen and remain so for some time, subsiding as the day advances. Both of these states are due to the increased intra-abdominal pressure but the regular changes in the feet and ankles and in the hands follow the waking and resting hours and are influenced by the force of gravity. In the reclining position we offset the force of gravity in the long axis of the body permitting the subsidence of the pedal edema. This position permits the torso and upper extremities to receive the full force of the heart beat undiminished by the force of gravity with the swelling of the hands resulting. Again the explanation of the causative factors seems to satisfy. After all, about all one can do is to relieve the patient's mind, certainly not the condition.

PAIN OVER PUBES

Another very frequent complaint may have to be looked at as a combination of several component parts. Many patients will complain of only one and others of all. Many will remark that after sitting for a period of time that walking

becomes very difficult for a short while and may even be painful. They frequently find it quite difficult to arise from a sitting position. Especially is such a complaint common in multigravidae. It may be referred to as pain in the lower abdomen, or over the pubic joint. It may be referred to as a backache or localized in the sacro-iliac region. It may be referred to the coccyx or the hip. The strain and resultant relaxation of previous labors probably accounts for the preponderance of such complaints in multigravidae. Slight or moderate relaxation due to the general pelvic vascular congestion occurs in a large percentage of pregnant patients. This coupled with the increased intra-abdominal pressure and circulatory stasis in the extremities brings about a cramping of the musculature. These cramps may be in the feet or in the calves of the legs.

Since all of these complaints are of predominantly mechanical origin, relief can only be expected by using some mechanical maneuver or appliance. For the immediate relief of cramps massage and heat are the only procedures. The patient should be advised to wear proper fitting and low heeled shoes, as an aid to nature in maintaining the body balance as the center of weight shifts with the forward enlarging of the abdomen. With those complaints referable to the abdominal wall, the hips, the symphysis pubis or the sacro-iliac region, a well fitted girdle, snug over the pubic bone, a sort of half hammock effect will tend to hold the tumor of pregnancy well in and up out of the brim. This is, of course, an immediate treatment and with allowances for the continuous increase in the size of the tumor of pregnancy may be continued throughout the pregnancy. Very good results have been obtained in these latter cases by pushing calcium and vitamin D on these patients. Several have reported marked relief and a few after a period of two or three weeks have reported no further need for the girdle.

In conclusion, I wish to say that I have not attempted in this paper to offer any new scientific ideas but rather to reiterate well known facts that we may at times be prone to neglect. But I believe that the recognition of the existence of these discomforts and their correction will pay dividends in the form of increased mental and physical comfort of the patient during her pregnancy.

9 Buttles Ave.

All Negro patients registered with the Providence Hospital Clinic in Chicago—30,000 in number—are to be X-rayed within the next year in a search for tuberculosis. The families of those who have the disease will also be X-rayed. The project has received a grant from the Julius Rosenwald Fund.—Survey, Jan., 1940.

Functional Menstrual Disturbances

Dysmenorrhea is a purely subjective complaint and therefore difficult to evaluate. It generally is recognized that there is a large psychic element, a fact which further complicates the estimation of the effect of any form of therapy. At present there are apparently two general ideas underlying the endocrine treatment of the condition: (1) that the painful sensations are due to abnormally severe uterine contractions evoked by an excess of the estrogens, and (2) that the uterus is underdeveloped and thus responds abnormally to the estrogenic stimulation. Based upon the first concept, many clinicians give progesterone during the lutein phase of the cycle while those who adhere to the second hypothesis administer estrogen during the early days of the intermenstrual period to stimulate uterine growth. From the available evidence it appears that each mode of therapy is effective in something like 65 per cent of the cases, further evidence that the psychic factor is important. It seems reasonable to use estrogens first when examination reveals an undersize uterus and to reserve progesterone for those patients who do not respond to estrogenic stimulation or who seem to have normally developed genitalia.

In any case, especially young women, attention should be given to improvement of the general hygiene, correction of postural abnormalities and institution of correctional exercises. Approximately one half of these patients will respond to such measures with marked pain relief. Operative procedures are rarely indicated and never should be considered until all other methods have failed.

Menopausal symptoms apparently are due to some disturbance of the autonomic system which leads directly to the various nervous phenomena such as hot flushes, irritability, nervousness and headaches. The complaints are entirely subjective and therefore prone to be affected by the psychic constitution of the individual. Endocrine surveys have shown that with the cessation of ovarian function, there is an increase of the gonadotropic hormone in the blood and urine and a decrease in the estrogen production which suggests that the symptoms may be due to one or the other. There is apparently no way to decrease the formation of gonadotropic substances except by the administration of the estrogens which, therefore, have been used widely in this condition. It has, however, not yet been determined whether the clinical manifestations are due to the increase of pituitary activity or to the decrease in estrogen formation.—E. D. Plass, M.D., Iowa City, Iowa; Jour. Mo. S. Med. Assn., Vol. 37, No. 10, October, 1940.

Vagino-Pelvic Massage and Tamponade

A Conservative Gynecologic Procedure

CLIFFORD J. VOGT, M.D.

THE capability to offer conservative treatment and to avoid meddlesome surgery should be the attribute of every physician dealing with diseases of the female genital tract. In the female there is a great concentration of structures which commonly, individually or collectively, may be the site of a great variety of complications. A large proportion are incident to the sequelae of child bearing and will yield readily to conservative therapy. Infection may deal severely with the physiological capacity of the pelvic organs and the infectious process must be delicately coped with in order to preserve or to regain the functional capacity of these organs.

The majority of gynecologists employ many types of conservative measures but I should like to recall attention to vagino-pelvic massage and tamponade as an excellent therapeutic procedure which has fallen by the wayside during the past years. It has not been discarded by those familiar with its application. To those there is no substitute. However, its use is unknown to the greater majority of younger men. We have used this excellent procedure in the treatment of many varieties of complaints and many types of acquired abnormalities of the female genital tract with great success. To our minds it approaches an ideal conservative method. Vagino-pelvic massage and tamponade may be combined with other useful types of conservative therapy. Patience and the proper selection of cases are the only requirements for its successful use.

Vagino-pelvic massage may be performed by the bi-manual abdomino-pelvic method with the patient placed in the lithotomy position. The fingers of the intra-vaginal hand are used as the active instruments whereby massage and manipulation is performed, while the hand on the abdomen is used to steady or to grasp the body of the uterus and so aid in extreme mobilization of the uterus and its appendages. There is no doubt that this procedure is of use in many instances but there are definite limitations to its effectiveness. Many times the depth of the vagina itself may be too great to reach the intra-pelvic structures. This is especially true in nullipara in which cases there is no "give" to the firm perineal structures. The virginal introitus may not permit entry of the fingers to their full extent due to the firm and sensitive hymenal ring. Moreover, massage of this type is often painful.

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We, therefore, prefer treatment with the individual placed in the full knee-chest position. With the use of this approach the intra-abdominal structures are displaced from the endo-pelvic organs and the full limit of passive pelvic mobility is permitted. A Sims vaginal retractor is gently inserted through the introitus into the vagina. Upward (dorsal) traction is exerted upon the posterior vaginal wall and the in-rush of air immediately balloons out the vagina. This affords direct visualization to the cervix and the entire vaginal vault. Exposure, therefore, is maximum. The operator now takes his place slightly to the left of the patient and retracts with the left hand. A good light is directed into the field of operation and with the use of a lubricated cotton ball grasped in a uterine forceps massage is now performed. Firm, steady, vertical strokes are made beginning in the mid-line of the cul-de-sac and continued laterally to the fornices on either side. Massage may be especially concentrated to any area of localized pathology.

The use of this type of massage permits access to the entire vaginal vault in all instances. There is no pain or discomfort caused by the traction because the broad, flat surface of the retractor has a fixed contact with the introital tissues. On the other hand, direct retraction is not possible when the fingers are used as the manipulating instrument as in the abdomino-pelvic type of massage and there is necessarily irritation and discomfort from the movement of the hand at the introitus. The contact of the soft cotton with the mucous membrane of the vaginal vault and indirectly with the endo-pelvic structures is less painful than the fingers. Furthermore by utilizing the knee-chest position venous and lymphatic

drainage is abetted—a very important consideration in many instances.

After thorough massage, cotton tampons, the ends of which are soaked in a boroglycerine solution are placed snugly in position. The tampon is used for administering medicants and for the purely mechanical effect of stretching. It may be of either wool or cotton. It is readily made from a piece of material five inches square and one inch thick around the end of which a piece of string is attached by a clove-hitch, long enough for convenient removal by the patient 12 to 24 hours later. Icthyolglycerine or medicated lanolin may be used in place of boroglycerine. We prefer a 50 per cent solution of the latter due to its hygroscopic properties and its depleting action. It does not stain clothing.

The mechanical effect derived from this type of massage is one of gradual stretching which the tampon tends to maintain. However, the primary result is due to improvement in the circulation to the pelvic viscera, both blood and lymphatic, by which infiltration and induration are gradually dissipated and chronic exudates more readily absorbed.

The combined use of massage and tamponade is most useful in treating a variety of conditions. The more important and most common are discussed below.

ENDOMETRIOSIS

Endometriosis is a disease that may affect a woman at any time during the entire child-bearing period and in most instances the onset is insidious and during the third decade—a period during which most pregnancies occur. It has been our experience to find during many laparotomies, incidental early endometrial implants involving only the peritoneum of the cul-de-sac—at this time they appear as mere “powder burn” marks and there is no contiguous involvement and they are productive of no symptoms. As the process progresses scarring and induration with infiltration of the surrounding tissues becomes greater, and symptoms become manifest which become progressively more severe. The utero-sacral ligaments become thickened, tense and contracted, and tender. Small, firm nodules are characteristically palpable. It is in these earlier cases that conservative palliative therapy is indicated. It is necessary to carry the patient through the child-bearing period as symptom-free as possible—at least until any pregnancies that may be desired are conceived, inasmuch as permanent cure is attained only by completely destroying the function of the ovaries.

Massage, at first very gently performed for only short periods of time, is carried out and a boroglycerine tampon is packed snugly in the cul-de-sac after each treatment. The subjective response to treatment follows clinical improvement. As the ligaments become more soft and

plastic the tenderness disappears and the patient is asymptomatic. Treatment is at first quite frequent—every two or three days but later may be deferred for longer periods. Prophylactically it is advisable once each month a few days after the menstrual period. A hard rubber Smith pessary may be used in conjunction with the massage but only after the tenderness of the ligaments has disappeared. This aids in making continued stretching and prevents any tendency toward retroversion. When the disease is wide-spread and there are palpable enlarged and indurated ovaries and parametrial thickening, massage is not very successful in producing the desired results and is usually contraindicated for it may further disseminate the disease.

CHRONIC PELVIC INFLAMMATORY DISEASE

Most astonishing results are encountered in dealing with chronic pelvic inflammatory disease, the majority of which is gonococcal in origin. A case which has been properly handled during the acute stage and seen in the early chronic phase of the disease when there is only slight fixation and little parametrial thickening is often salvaged with complete anatomical and functional rehabilitation. The majority of dispensary patients, however, have been subjected to continued re-infection. They complain of a chronic vaginal discharge, backache, intermittent dull aching pain in the lower abdomen or a dragging sensation in the perineum. Pelvic examination usually reveals, besides the associated stigmata of the disease in the vulvo-vaginal and para-urethral glands, a chronically infected cervix limited in mobility and the fundus of the uterus is similarly fixed. The broad and utero-sacral ligaments are thickened and a mass is usually present in the lateral region which most commonly represents a previous tubo-ovarian abscess or pyosalpinx and is densely adherent to all the surrounding structures. One, therefore, receives the general impression that there is fixation, infiltration and induration, and associated adhesions. What do we hope to accomplish by conservative treatment? The first consideration is to afford subjective relief of the symptoms. This, when interpreted into clinical response means freeing, loosening, or “softening up” the intra-pelvic tissues. The mechanical effect of massage stretches the indurated tissues and adhesions, and the improvement in both the blood and lymphatic circulation hastens the resolution of these and promotes the resorption of chronic exudates. The boroglycerine tampon is of aid in the latter and the discharge is most profuse at first. We see extreme cases in which a mass may be definitely palpable extending to the level of the umbilicus but which reveal very little residual parametrial involvement other than a hydro-salpinx after a few months weekly or bi-weekly treatment. Fur-

thermore there is free mobility of the cervix and uterus at the end of this time. This type of case remains asymptomatic unless subjected to reactivation or reinfection.

When previously treated cases are given to laparotomy for removal of the diseased tissue we find instead of tough, edematous, and vascular adhesions, very fine and practically bloodless adhesions which separate readily in good cleavage planes. The parametrial structures are plastic and do not interfere with good mobilization of the uterus and cervix so that complete hysterectomy is easily performed. This is much different from the severe traumatic procedures entailing tedious dissection and stormy convalescence in cases not pre-operatively prepared. In this latter respect I might add that we treat all cases in which we find non-emergent pelvic pathology but associated with clinical signs of fixation or induration with vagino-pelvic massage and tamponade before we attempt operative procedures. Following this routine during the past few years we have had a general operative mortality of 1.1 per cent for over 900 abdominal panhysterectomies.*

We find the technical surgery has been infinitely more simple and less traumatic and the post-operative complications and morbidity have been much decreased.

Massage has frequently been condoned as a therapeutic measure in disease of the female pelvic organs which is due to an infectious process because of the possibility of reactivation or "flare-up". This is a valid objection when the procedure is used during the acute phase. The latter cases should be strictly avoided in so much as manipulative treatment is concerned. However, in those cases of established chronicity as manifested by a normal temperature and the absence of tender intra-pelvic masses we have not yet encountered deleterious results and posterior massage is a perfectly safe procedure.

POSTPARTUM COMPLICATIONS

Among the post-partum complications which yield to treatment are retroversion and tender utero-sacral ligaments, two sequelae of child-bearing that are most commonly associated with backache. A post-partum retroversion of the uterus which may not be corrected by bi-manual manipulation often falls forward upon placing the patient in the knee-chest position and stroking the cul-de-sac. A Smith pessary is immediately inserted. In cases with an associated post-partum sub-involution with an enlarged, boggy uterus lying posteriorly in the cul-de-sac the combined treatment with massage and tamponade is excellent therapy in correcting both conditions. Circulation is improved, cellular edema is depleted, and the uterus becomes

smaller, more firm, and can easily be held anteriorly. When retroversion is associated with adhesions, these are stretched and become thin and veil-like so that often upon later bi-manual manipulation they can be felt to separate. Practically any acquired retroversion may be corrected following a course of vagino-pelvic massage except those in the presence of an old endometriosis.

Posterior massage and tamponade may be used to great advantage in treating simple ovarian cysts and tender prolapsed ovaries. The latter first become free of tenderness, induration, and edema, and later may be grasped between the fingers during abdomino-pelvic examination and completely mobilized. Simple cysts may disappear after two or three treatments. However, cysts that remain refractive should be regarded with suspicion.

It is our belief that vagino-pelvic massage and tamponade is an effective and reliable therapeutic measure that might well establish its place in the armamentarium of the practitioner's conservative gynecologic methods. In properly selected cases and with a little patience uniformly encouraging results are attained.

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Preventive Therapy of Anemia

Infants of low birth weight or those born of anemic mothers deserve prophylactic doses of iron from the second month of life. It is also advisable to administer iron to all infants or children whose appetites are slack or who suffer frequent infections.

The prevention of anemia in the poorer classes is largely a matter of dietary education and the administration of iron in smaller than curative amounts. The exhibition of iron in all cases of pregnancy is becoming an established routine of obstetric practice.

The correction of abnormal menstrual patterns is of major importance in practice. The presence of menorrhagia or metrorrhagia deserves prompt surgical or endocrinologic attention. Anemia itself as a cause of excessive menstrual blood loss is not unusual and such cases may respond specifically to iron therapy.

In the presence of chronic ailments, careful supervision is required; it is advisable to supplement the diet with iron. Particular attention must be paid to those who are daily exposed to industrial poisons which may affect the blood.

No amount of anemia is ever too slight to warrant dismissal. In health or disease, periodic, accurate estimation of the hemoglobin is the primary desideratum in the prophylaxis of anemia.—Adolph J. Creskoff, M.D., Philadelphia; Penna. Med. Jour., Vol. 43, No. 12, September, 1940.

*W. C. Weir—Personal Communication.

Symmetric Cerebral Calcification Simulating Brain Tumor

ALBERT T. STEEGMANN, M.D.

SYMMETRIC cerebral calcification is a rare, chronic progressive disease of obscure etiology. The most characteristic neurological signs consist of focal or generalized convulsive seizures, mental and intellectual impairment and in the late stages of the disease distinctive roentgenologic changes. The diagnosis is difficult unless the disease has progressed to the stage where calcification is visible in the roentgenogram.

CASE REPORT

The patient, a 44-year-old Italian man, was admitted to St. Alexis Hospital on the Service of Dr. H. V. Paryzek, April 18, 1938. He had suffered from epileptic seizures since 1936. Since 1928 he had complained of numbness and weakness in the extremities, and these symptoms became worse after 1935. In October, 1936, he had a generalized, convulsive seizure preceded by "dizziness", numbness and cramps in the hands and feet. The attacks recurred at about monthly intervals. After 1937 signs of failing memory for recent events and an extreme degree of fatigability developed. Focal epileptic seizures limited to the right hand and arm occurred frequently. One of these lasting about 30 seconds was observed. The patient stopped speaking, his face became pale, the chest muscles set and the seizure began in the right hand with a slow clinching of the fist as the arm was slowly flexed at the elbow and carried up over the chest in supination. This was followed by extension of the arm and pronation. This movement was repeated several times. Severe generalized convulsions also occurred during which the head and eyes were turned to the right.

The family history was not significant. The patient had been given industrial compensation upon the claim that his illness was the result of lead intoxication. Investigation of his occupation revealed no exposure to a toxic form of lead, and no evidence of lead intoxication was discovered clinically nor in the examination of the blood, urine and feces.

The physical examination, except for the neurological signs, was normal. The patient appeared apathetic and the sensorium was clouded. Examination of the cranial nerves and optic discs was normal. The tendon and abdominal reflexes, however, were sluggish and there was an extensor plantar response on the right. Action tremor was present in the right arm in carrying out the finger to nose test. The spinal fluid was normal except for a pressure of 270 mm. of water. The blood and spinal fluid seroreactions were negative. The patient was discharged from the hospital April 23, 1938, before roentgenographic and other studies that were contemplated could be made.

On May 7, 1938, 17 days after the above obser-

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ations, the patient was admitted to Lakeside Hospital by Dr. J. L. Fetterman because of persistent stupor following a convulsion eight days before. His speech had been aphasic since that time. On admission his right optic disc was blurred and the left showed two diopters of choking. The tendon reflexes were very sluggish or absent. Because of his serious condition the patient was transferred May 10, 1938, to the neuro-surgical service and Dr. Claude S. Beck performed a craniotomy over the left parietal region. Dr. Beck upon needling the brain encountered deep seated, gritty, resistant tissues at a point six or seven centimeters posterior to Broca's area. No other operative procedure was carried out except decompression. The patient died May 12, 1938.

AUTOPSY

The autopsy was performed by Dr. C. H. Evans, Jr. The only significant lesions were in the brain. The brain was swollen (weight 1500 Gm.), the convolutions were flattened and the left hemisphere was larger than the right. The basilar blood vessels were not remarkable. A careful search was made for defects or anomalies of the blood vessels in the pia and other regions but none were found. The brain cut with increased resistance. The left hemisphere and basal ganglia were swollen and there was some displacement of the ventricles to the opposite side. (Fig. 1B). The gross architecture of the brain was preserved and no tumor was present. In the basal ganglia, subcortical white matter and in some areas of the cortex the tissues appeared granular with a gray discoloration. Such areas contained small rigid blood vessels and sand-like particles that could be felt against the knife. Their consistency varied from firm to soft.

Microscopic examination reveals deposits of a substance containing iron and calcium in the walls of the smaller blood vessels and capillaries. The areas of the brain involved are the cerebral cortex, the subcortical white matter, striatum, pallidum, dentate nucleus and cortex of the cerebellum. The midbrain and medulla are not injured. The leptomeninges in the Nissl stain shows hyperplasia with moderate infiltration of red blood cells, lymphocytes and mononuclear phagocytic cells, some of which contain dark

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brown pigment. The blood vessels of the meninges are hyperemic and in an occasional vessel the lumen is filled with acidophilic granular material.

The vascular disease in the brain is present in the arteries and less frequently in the veins. Calcification occurs in both the media and adventitia in some of the vessels (Fig. 2B). The walls of many vessels are completely replaced by calcification (Fig. 3C). In some the endo-

Ammon's horn is pronounced with proliferation of astrocytes and microglia (rod cells). Calcification of capillaries in lamina IV of the area striata at the depth of the calcarine fissure is present (Fig. 4). In the dentate nucleus of the cerebellum capillary calcification is not associated with a severe degree of ganglion cell disease.

COMMENT

The type of vascular disease observed in this case has been known since the publications of Virchow¹ and Mallory.² Medial calcification of the smaller cerebral arteries is unusual except in the basal ganglia. In symmetric cerebral calcification the disease begins in the media of the vessel wall and tends to advance outward to involve the adventitia. In a more advanced state all of the wall except the endothelial lining becomes calcified and vessels can be seen completely replaced by calcification but it is not certain whether or not they were previously the seat of thrombosis (Fig. 3C, right). The term "endarteritis calcificans cerebri" coined by Geyelin and Penfield³ is a misnomer because the calcification occurs first in the media. In the capillaries deposition of calcareous material adjacent to the

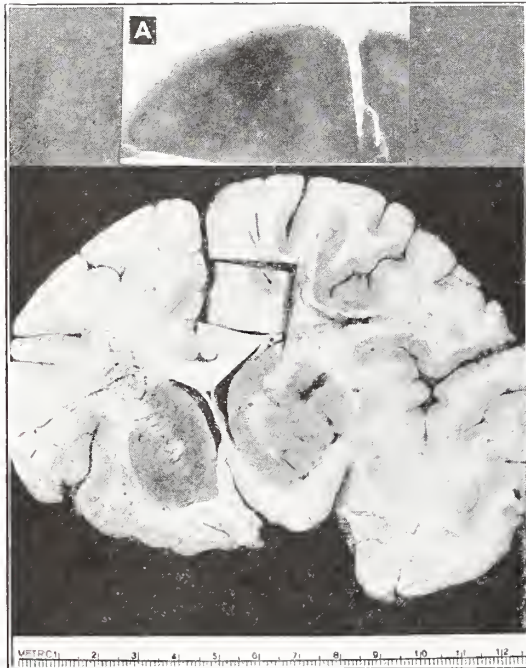


Fig. 1. (A) Cerebral Cortex. Calcification following Convolutional Pattern. Roentgenogram of a Coronal Brain Section. (B) Coronal Brain Section. Swelling of Left Hemisphere and Other Changes Described in Text.

thelial lining can still be seen. The lumen is reduced in diameter in some vessels (Fig. 3C) and in others it is filled with acidophilic granular material. Thrombosis, perivascular hemorrhage or lymphocytic infiltration is not infrequent. In the cerebral cortex the walls of many arterioles are collapsed and the perivascular space is greatly widened. This appears to be a condition in the trunks of the vessels lying distal to a thrombosis in the vessel (Fig. 3B). In the capillaries the calcified material is deposited as fine globules along the pericapillary spaces (Fig. 2C). The degree of change varies from a bead-like chain of globules to complete replacement of the capillary by irregular, globular, coral-like or mulberry shaped concretions (Fig. 2A).

The degree of degeneration of the parenchyma varies. In some regions in which there is marked capillary calcification most of the nerve cells are intact; in other regions there is architectural distortion with moderate to complete loss of ganglion cells. The tissues are reduced to a spongy state in some of the degenerated zones. In the cortex of the left inferior central region there is a diffuse loss of ganglion cells with an increase of protoplasmic and fiber-building astrocytes (Fig. 3A). Rod cells are not numerous. The ganglion cells show chromatolysis and ischemic cell disease. The degeneration in

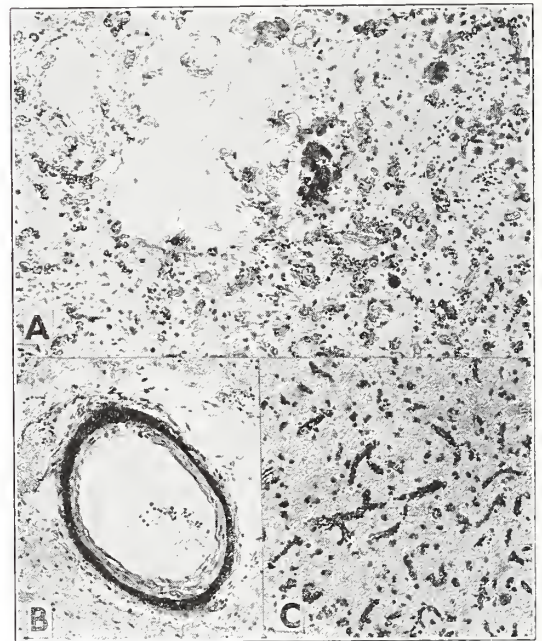


Fig. 2. (A) Putamen. Calcareous Crystals and Capillary Concretions in Degenerated Zone. (B) Globus Pallidum. Medial Calcification of Small Artery. (C) Calcified Capillaries in Putamen. Nissl Stain X 80.

walls tends to coalesce to form vascular sheaths and concretions. The studies of Hurst,⁴ Eaves,⁵ Ostertag,⁶ Meyer⁷ and others indicate that a colloid substance is deposited in or around the blood vessels. Iron and calcium salts are apparently taken up and precipitated in this colloid since the material can be seen in many vessels which fail to stain for either iron or calcium.

This suggests that the disease may exist for a long time before calcification occurs, at least to a degree sufficient to produce roentgenographic changes. Furthermore, the relatively well preserved parenchyma in some areas of calcification seems to indicate that degenerative changes of the ganglion cells represent a late manifestation of the process (Fig. 4). The pathologic observa-

reported by Fritzsche,¹⁰ Kasanin and Crank¹¹ and Eaton, Camp and Love¹² but the pathologic process was identical to that observed in this case and in one of the cases of Geyelin and Penfield which was examined microscopically. This indicates that the same disease process may show some variation in the type of roentgenographic picture.

It should be emphasized that the cerebral calcification in this case is not associated with hemangiomas or vascular anomalies in the brain and other organs. Such cases are referred to in the literature as Sturge-Weber's disease. Peters¹³ believes that the calcification in the latter condition is secondary to the chronic circulatory changes in the tissues brought about by the angiomatous malformations. (Dystrophic calcification). The calcification occurs in the vessels first. In this case of symmetrical cerebral calcification, the medial disease of the blood vessels leads to narrowing or occlusion. This might explain the collapse of the cortical vessels and the development of metabolic disturbances in the tissues favorable for the deposition of the colloid material. Eaton, Camp and Love found evidence of parathyroid insufficiency in three of eight cases of symmetrical cerebral calcification diag-



Fig. 3. (A) Cerebral Cortex. Proliferation of Astrocytes in a Degenerated Area. Cajal Stain X 370. (B) Collapse of Wall of an Artery, the Seat of Thrombosis, Cut Longitudinally. White Matter Adjacent to Cerebral Cortex. H. & E. Stain X 200. (C) Blood Vessels in Centrum Semiovale. Left. Artery with Medial Calcification, Thickened Intima and Narrow Lumen. Right. Completely Calcified Arterial Wall. H. & E. Stain X 312.

tions have an important bearing on the interpretation of certain clinical facts. The slow course of the disease, the frequency of epileptic seizures or focal neurologic signs and the late appearance of roentgenographic changes can be explained.

Since signs of increased intracranial pressure may occur in the terminal stage of this disease it is not surprising that a brain tumor may be suspected. This was true in the cases reported by Pick⁸ and Bassoe and Hassin.⁹ In general, it is unusual for chronic degenerative diseases of the brain to produce increased intracranial pressure.

Familial incidence of symmetrical cerebral calcification has been reported in three siblings by Fritzsche¹⁰ and in a father and four children by Geyelin and Penfield.³ The last mentioned authors pointed out that the discrete umbilicated or furrow-like appearance of the calcified material in the roentgenogram corresponds to its distribution along the convolutions of the cerebral hemisphere (Fig. 1A). A different type of roentgenographic appearance occurred in the cases

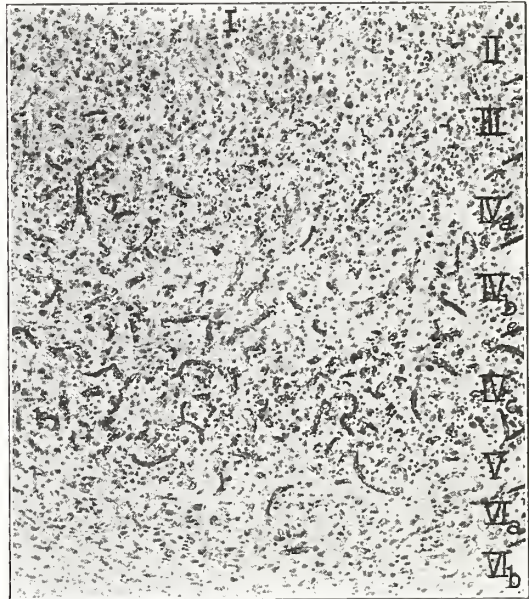


Fig. 4. Area Striata. Capillary Calcification in Lamina IV. Nissl Stain X 80.

nosed roentgenologically and evidence of the disease associated with tetany in seven cases reported in the literature. They have considered hypoparathyroidism a possible etiologic factor. McKendree, Wortis and Soltz¹⁴ reported three cases which they thought represented a clinical group with a faulty calcium metabolism. The familial incidence of the disease with what ap-

pears to be a primary medial degeneration of the vessel wall favors the conception that a disturbed calcium metabolism is probably only a factor in the etiology of the disease.

SUMMARY

1. Symmetric cerebral calcification is a chronic progressive disease of obscure etiology that may occur in more than one member of a family.

2. It is characterized clinically by neurologic signs especially focal or generalized convulsive seizures, mental or intellectual impairment, and distinctive changes in the roentgenogram.

3. The pathologic changes consist of medial calcification of the small cerebral blood vessels and deposition of a colloid substance containing iron and calcium around and in the capillaries. Secondary degeneration of the ganglion cells and reaction of the neuroglia follow.

4. The disease is not associated with vascular malformations as in Sturge-Weber's disease.

5. There are some observations that suggest that one of the etiologic factors is hypoparathyroidism or a faulty calcium metabolism.

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Generalized Itching

The symptomatic treatment of generalized itching can be considered under three headings: first, internal treatment to decrease the sensitivity of the skin; second, the avoiding of further external irritation to the skin; and third, the use of soothing or antipruritic preparations on the skin. The barbitol group of drugs and aspirin both have the ability to decrease the sensation of itching. Consequently their judicious use will alleviate the symptom a great deal. Five grains of aspirin given several times a day plus one and one-half grains of phenobarbital at bed time will markedly decrease the intensity of a generalized pruritus.

The most important external irritant to avoid is soap; therefore, individuals with generalized itching must not have soap and water baths, but they may take a soothing bath. The simplest bath can be made by putting one-half to one pound of soluble starch (Linit) in a tub half full of luke-warm water. A more soothing bath can be made by the use of oatmeal and baking soda. This colloid bath is made as follows: one cupful of oatmeal is placed in a cloth bag and boiled for five minutes in two to three quarts of water. The oatmeal bag and water are then placed in a bath to which has been added previously two table-spoons of baking soda. The bag is squeezed and the individual takes his bath using the oatmeal bag as a wash cloth. The bath should be luke-warm and he may remain in the tub for as long as a half hour. After the bath the skin should be dried by patting and as a rule an oily preparation such as calamine liniment, N.F., with one per cent phenol is applied to the skin. Because of the cost, local applications to be used to control generalized itching should be simple and inexpensive. In most instances the skin is too dry. In the simpler cases cottonseed oil may prove effective. Other preparations frequently used are calamine liniment, N.F., with one per cent phenol; five per cent boric acid and one-fourth per cent menthol in petrolatum or cold cream; and Lassar's paste, N.F., diluted with one or two parts of petrolatum. A non-oily preparation such as calamine lotion with one per cent phenol may be used as an interval application but because it is drying, oily preparations must be used once or oftener a day.

In conclusion it can be said that generalized itching is a common symptom of diverse causes. Except in scabies and other disorders where specific treatment is indicated, purely symptomatic therapy may be all that can be done. Symptomatic treatment as outlined is usually effective in alleviating if not completely controlling generalized itching.—Ruben Nomland, M.D., Iowa City; Jour. Iowa S. Med. Soc., Vol. XXX, No. 10, October, 1940.

Acute Respiratory Emergencies

S. C. YINGER, M.D.

IT perhaps seems strange that an otolaryngologist and a bronchoscopist should be discussing a topic which from the title appears to be a purely medical problem. I propose to correlate many of the acute chest findings with which we are all familiar with adjacent infective processes, with mechanical respiratory obstructions, and with bronchopulmonary processes often neglected or overlooked in arriving at chest diagnoses. My prime reason for the presentation of this paper is that the information which it may contain will be of benefit in diagnosing these cases and in applying the proper treatment. Many of these patients will be children, and from whom a reliable and accurate history often can not well be obtained; these cases are always first seen by the general practitioner, the pediatrician, or the internist.

Those of us who are doing laryngoscopy and bronchoscopy too often take it for granted that the physician first observing a patient suffering from an acute chest emergency will at once recognize the condition for what it is, and even be able to make a prompt etiologic diagnosis. Often this is asking far too much of the family physician since such cases may be one of the less easily recognized conditions, the correct diagnosis being largely dependent upon direct visualization of the larynx and bronchi. It is with this idea in mind that I wish to review a few representative cases, each illustrating a different problem.

CONGENITAL LARYNGEAL STRIDOR DUE TO FLACCID EPIGLOTTIS

D. F., a robust three-weeks-old infant was seen, at the request of the attending physician, in which there had rather suddenly developed a severe inspiratory dyspnea which was first noted the day the mother and child had gone home from the hospital. There were loud crowing inspiratory noises when the child was taking a bottle, or when lying on his back: this was greatly accentuated on crying. Upon turning the infant to its side or on its face the noisy respiration entirely disappeared. The condition had previously been diagnosed as an enlarged thymus and X-ray treatment had been carried out without any noticeable benefit. This latter diagnosis had been made with only a single anterior-posterior plate which did not take into account the anterior-posterior diameter of the thymic shadow.

A direct laryngoscopy was done and it was noted that a very flaccid epiglottis was present, which folded backward and partially covered the laryngeal orifice. The base of the epiglottis was exceptionally wide, and the usual contour was altered by a marked curving of the edges. The

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child was crying (and lying on his back) when he was examined and the crowing inspiratory sound was well marked; but as the epiglottis was fixed against the base of the tongue the breathing became quiet and of a normal character. The laryngeal orifice was normal; the trachea was normal. The parents were advised to encourage the child to lie on its side and on its stomach, and after the age of four months the symptoms were entirely gone. There has been no recurrence, the child now being three years old, but at four months of age the thymus shadow still remained and was almost as wide (laterally) as at the first picture.

ASPHYXIA OF THE NEW-BORN

R. H., a child was seen an hour after birth; it was deeply cyanotic and the respirations were shallow and rapid. Labor and delivery had been entirely normal, and the infant appeared normal except for the respiratory embarrassment. The usual methods of stimulation of breathing had been carried out without any improvement of the condition; the mucus had been aspirated from the mouth and pharynx with a soft catheter. Auscultation over the chest showed an absence of breath sounds in the lower right chest, and over the entire left lower lobe. A direct laryngoscopy was done, without anesthesia, and the larynx was normal; there was some clear thick mucus noted as coming from the trachea when the child attempted to cry. A small flexible tip aspirating tube was inserted into the trachea and then into both main bronchi. A rather large amount of viscid mucus was aspirated from both lungs. Within a few minutes the child's respirations became deep, the color returned to normal, and for the first time he exhibited a loud normal cry. This was a case of atelectasis due to a large amount of mucus in both main bronchi causing a mechanical obstruction. After a short time it was noted that breath sounds could be heard quite clearly in all areas of the chest.

FOREIGN-BODY IN THE LARYNX

M. S., a child of 20 months, who had been subject to recurrent attacks of croup, suddenly began coughing while playing on the floor; within a few minutes the cough became quite croupy. The mother instituted some home remedies which had been effective in the child's previous attacks of the croup, but she thought it strange that he should have croup during the day; all past experiences with it had been during the night. The

child was not relieved of the croupy cough, although the attacks came on less frequently. His voice became very hoarse and he refused food and would take only very occasional small amounts of water. The next day he was taken to the family physician who noted the croupy cough, hoarseness, and some dyspnea. There was no fever and no notable findings in the chest. Medication was prescribed, but later that day the dyspnea became more severe, breathing became noisy, and mild cyanosis was present.

The child was sent in to the hospital and an X-ray taken of the neck and chest; this revealed an open safety pin in the larynx. Up to that time a foreign-body had been only remotely considered. At the time of admission the child had a moderate fever, cyanosis, noisy breathing with inspiratory difficulty, marked suprasternal and intercostal retraction, refusal of all food and fluids, and refusal to sleep. The foreign-body, a small brass safety pin, was astride the posterior portion of the larynx with the keeper in the glottis and the point in the laryngopharynx, and the entire larynx very edematous. The pin was removed with some difficulty, since the keeper was deeply imbedded in the swollen tissue. Because of the very severe inflammatory reaction in the larynx with an inadequate airway the bronchoscope was inserted and a tracheotomy done at once. The child remained in the hospital seven days and went home, the tracheotomy tube having been removed two days before.

RECURRENT "ASTHMATIC BRONCHITIS"—VEGETAL FOREIGN-BODY IN THE BRONCHUS

R. S., a male child of two and a half years had had repeated attacks of a respiratory infection over a period of about three months; these occurred at varying intervals and would persist for three or four days. They were characterized by fever, cough occurring in severe spasms, audible wheeze, and many rales in both lungs. Each time an attack began the parents took the child to their family physician who prescribed some medicine and after a few days the process would subside. After an especially severe recurrence lasting a week I saw the patient and he had findings which most resembled a so-called "asthmatic bronchitis", with fever of 104° and, for the first time, hoarseness with mild dyspnea. X-ray studies were carried out, films being made at full inspiration and full expiration; in the left lower lobe there was evidence of lack of aeration of the entire area supplied by the lower lobe bronchus. This confirmed the physical findings which pointed to a left-sided lower lobe lesion.

A bronchoscopy was done and a rather large amount of thick mucus was aspirated from the left lower lobe bronchus; several particles of soft brownish material were also noted and were removed. The mucosa in this area was intensely reddened, and there was noted considerable redness and swelling of the laryngeal and subglottic mucosa. The child was placed in a croup tent but about four hours later it was necessary to do a tracheotomy because of the subglottic edema. The child made an uneventful recovery and is now about six years of age. When confronted with the foreign material removed from the bronchus, one piece of which resembled a small piece of the hull of a seed, the family stated that the grandmother recalled the boy choked on a grape while visiting her about three or four months previously. There was a severe

coughing spell at the time, which after subsiding was completely forgotten.

SUDDEN COUGHING WHILE EATING—FOREIGN-BODY IN THE BRONCHUS

L. G., a male child of 14 months while eating small pieces of crisp bacon bit his finger and in beginning to cry took a deep breath and inhaled some of the bacon. There was constant cough thereafter until the patient was seen about three hours later. The child had been well with no cold and no cough prior to the accident. An X-ray study was carried out but this failed to give any clue as to the presence of a foreign-body. However, in the face of persistent coughing it was felt imperative that a bronchoscopy be done. We found a rather large amount of thin watery secretion in the left main bronchus with many tiny fragments of bacon which were removed through the aspirating tube. The mucosa was only slightly reddened in the left bronchus, but the foreign-body had only been in contact there for about three hours. The child coughed some for another 12 hours and left the hospital after two days completely recovered.

RECURRENT "CHEST COLD"—FOREIGN-BODY IN THE BRONCHUS

E. G., a ten-year-old boy, choked while running with a wooden whistle in his mouth; there was a sudden spasm of cough and a portion of the whistle was noted as being missing. The whistle was one of the "squawker" type, which has a small balloon attached and is seen commonly at fairs and carnivals. The boy advised his parents of the mishap but since he rather promptly ceased to cough the incident was soon forgotten. Within three or four days the child developed some fever and a cough and was thought to have a respiratory infection which was quite prevalent at that time; this attack subsided, without any signs of localization of the process, within a few days and he returned to school. Within another week the supposed bronchial infection was repeated and this cleared up as previously. Upon a third attack a week later, also with fever and this time with a mildly productive cough, the family physician became suspicious of some unusual origin of these episodes and the mother finally recalled the choking accident with the whistle, then about four weeks past. X-rays were taken and after a great deal of deliberation the roentgenologist decided there was no evidence of foreign-body in the tracheo-bronchial tree. The family physician was still unconvinced that the three acute respiratory attacks were of innocent origin and so the patient was sent in to the hospital.

Upon admission the patient was fever-free. Upon careful and repeated examinations of the lungs it was decided that, in view of only one finding which was not normal, to defer bronchoscopy until the next morning. The only abnormality noted was a slight suppression of both inspiration and expiration in the lower medial portion of the left lung posteriorly, and this was not at all marked. However, a bronchoscopy was done and from the most medial subdivision of the left lower lobe bronchus a small open-end wood-fibre cylinder was removed; when this area of the bronchus was first inspected no foreign-body was seen, but upon having the patient breathe more deeply the end of the fibre cylinder was seen to push around the bronchial spur and thus come into view. The

foreign-body was seen only upon rather forcible expiration and then it retreated "around the corner" with inspiration. The almost complete absence of findings upon chest examination is explained by the fact that the foreign-body had descended as far into the bronchial subdivision as it could go, and since the long axis of the cylinder was in the axis of the bronchus, it allowed free entrance and exit of air into the portion of lung supplied by this bronchial subdivision. This was a somewhat unusual type of foreign-body and it was only through good fortune that it was ever found.

"SWALLOWED" FOREIGN-BODY—WITH SUBSEQUENT PULMONARY SIGNS

R. M., a boy of 11 years put a corsage-pin in his mouth while reading. He stated that he rolled it around on his tongue for awhile and finally it slid into his throat, head-end first, and he swallowed it; he said there was considerable gagging at the time with a cough or two. He had no discomfort or pain, and was able to swallow solid food and liquids as usual. The mother called the family physician who, upon being informed that the foreign-body was swallowed, advised them to give the boy a normal diet and to have an X-ray of the abdomen the next day. By the next day the child was apparently normal and the patient did not report in for the X-ray examination. After three days the child was noted to cough occasionally upon changing his position from erect to recumbent, but there was no mention on his part of any discomfort. The coughing attacks became more frequent and six days following the foreign-body accident he was taken to their physician's office "with a chest cold". Upon examination he was found to have a complete absence of breath sounds over the left lower lobe, with a few rhonchi heard rather loudly over the area of the left main bronchus; there was frequent cough but no expectoration, slight dyspnea, and an oral temperature of 100.2°. The right lung was normal as regards physical examination; the apex beat of the heart was displaced slightly laterally. An X-ray was taken and it revealed the corsage-pin in the left bronchus with the point-end upward; it also showed lack of aeration of the left lower lobe and displacement of the heart shadow to the left.

Bronchoscopy was done with no anesthesia; the foreign-body presented considerable difficulty in removal as the point and approximately 1.0 cm. of the shaft was imbedded in the medial wall of the left main bronchus and the rather large head of the pin was firmly held by the edematous mucosa of the lower lobe bronchus. By very gentle manipulation with the tack and pin forceps the point was finally disengaged and the foreign-body removed. The pin measured 8.0 cm. in length. The bronchoscope was again inserted and a large amount of rather thick muco-purulent secretion was aspirated from the left lower lobe bronchus. This child had an atelectasis of the left lower lobe with retention of secretion and infection; the lower lobe soon cleared and the fever subsided after 48 hours. Cough ceased at the end of two weeks. The child is now well.

ESOPHAGEAL FOREIGN-BODY WITH COUGH AND DYSPNEA

A. S., an elderly female of 70 years choked while eating white meat of chicken with the foreign-body lodging in the upper esophagus at the level of the suprasternal notch. She was unable to swallow even liquids and there was

pain present constantly. When the patient was seen about two hours following the accident there was dyspnea and constant cough present. During the time the X-ray studies were being carried out the patient's respirations were further embarrassed by attempts to swallow a thick barium mixture. A complete obstruction was demonstrated at the crico-pharyngeus level of the esophagus. It was first thought that a tracheal foreign-body might also be present, though no definite evidence of it could be found. At esophagoscopy a large mass of chicken meat was removed with complete relief of the respiratory symptoms; the dyspnea was due to pressure of the foreign-body on the posterior wall of the trachea, and the cough was due to over-flow of mouth secretions into the larynx.

SUDDEN CHEST PAIN WITH DYSPNEA FOLLOWING HERNIA OPERATION

H. G., a 47-year-old male had a simple hernia repair under local anesthesia. Twenty-six hours later there was a sudden onset of pain in the left chest with dyspnea and a rise in temperature from 99° to 101.4° within three hours. The patient was at once given a dose of morphine by hypodermic and chest X-rays were made at full inspiration and full expiration. Upon examination, shortly after onset, breath sounds could not be heard in the back corresponding to the area of the left lower lobe. About two hours later a flat note on percussion over this area was elicited. The X-rays showed an atelectasis of the left lower lobe with elevation of the diaphragm on that side and a shift of the heart to the left.

Treatment was begun by immediate discontinuance of the morphine, forcing of fluids both by mouth and intravenously, and frequent shift of the patient's position; he was encouraged to cough if there was any desire to do so. After a few hours the temperature dropped one degree but the pain and chest signs remained unchanged. It was decided to do a bronchoscopy to relieve the bronchial obstruction; this was done under local anesthesia and a large mass of thick tenacious secretion was removed from the left lower lobe bronchus. The first large plug of secretion was removed with forceps, the remainder through an aspirating tube. The patient was relieved of his discomfort at once and the lower lobe was promptly aerated. The bronchoscopy was repeated the next day and a smaller plug of secretion was removed. Following this there were no further changes in the chest, the signs and symptoms promptly subsided and convalescence continued uninterrupted.

SUDDEN FEVER, CHEST PAIN, AND DYSPNEA FOLLOWING APPENDECTOMY

S. N. A., a 22-year-old female had an appendectomy for an acute attack of appendicitis. The patient had a mild upper respiratory infection at the time of operation and a nitrous oxide-oxygen anesthesia was given. Morphine was given before operation and postoperatively, four quarter-grain doses being used in the 24 hours following operation. Some cough was present after operation and the pain in the operative wound associated with coughing caused the patient to suppress it as much as possible. This patient had vomited several times both before and after operation and was dehydrated, this being combated with subcutaneous fluids. About 30 hours after operation the patient had a sudden onset

of pain in the right axilla, made worse by cough or attempt at full inspiration, fever up to 102.8°, and short rapid respiration.

A complete suppression of breath sounds was soon noted over the entire right lower chest with a flat percussion note over this area and a note of hyper-resonance in the lung immediately adjacent. The condition was diagnosed as post-operative (ether) pneumonia. X-rays were made and this did not confirm the diagnosis of pneumonia, but it did reveal a lower and middle lobe atelectasis with a shift of mediastinal structures to the right and a rise in the level of the right diaphragm. A more accurate evaluation of the findings on physical examination should have disproved the pneumonia diagnosis. Treatment was begun by discontinuance of all opiates, giving large quantities of fluid by mouth, intravenously, and subcutaneously and frequent change of position. Within a few hours the symptoms began to subside and the patient expectorated large amounts of thick mucus. The temperature returned gradually to normal and the girl continued on a normal convalescence. Response to treatment was so effective that a bronchoscopy was not done.

CROUPY COUGH, DYSPNEA, HIGH FEVER IN A CHILD

M. T., a female child of three years, became suddenly ill with a hoarse croupy cough, rapid respirations, and fever of 103.5°. The girl had previously been free of upper respiratory infection and was entirely normal prior to the onset of the present illness. The family physician was called at once and he suspected that a foreign-body had been aspirated due to the sudden onset; no history of such an accident could be elicited, however, and all physical signs and X-ray evidence failed to confirm his suspicions. The cough was frequent and quite distressing, and within three hours of the onset the voice was quite hoarse. The condition did not respond to the usual remedies and upon the suspicion that this was probably a laryngeal diphtheria I was consulted and asked to do a direct laryngoscopic examination. There was by then still further increase in the dyspnea, and this was definitely of the obstructive laryngeal type, though the cough had become slightly less frequent.

At direct laryngoscopy the larynx was quite red and swollen and the aperture smaller than normal; the subglottic tissues were quite swollen. There was no exudate present. Bronchoscopy was performed and the entire tracheal mucosa was severely reddened and swollen, the bronchial mucosa exhibiting the same alterations from normal but to a lesser degree; a large amount of rather thick grayish secretion was present in the trachea and larger bronchi, and this was aspirated. The patient was more comfortable following bronchoscopy, and cough was much less frequent. The condition was diagnosed as acute laryngotracheobronchitis and appropriate medical treatment was instituted. This consisted of placing the child in a croup tent and in keeping the air as nearly saturated as possible with benzoinated vapor; fluids were forced and the baby was given nourishing liquids. The dyspnea which had been greatly relieved for several hours following bronchoscopy became gradually more severe, the child being unable to take fluids or food because of it.

A second bronchoscopy was done about eight hours after the first and one thick crusted mass of secretion removed from the trachea and other

thinner secretion aspirated; the patient again being greatly relieved of dyspnea. By this time the laboratory reported on cultures of the first secretion removed at bronchoscopy and it showed a pure culture of non-hemolytic streptococcus. The temperature was gradually subsiding and there was a great deal more air entering the lungs. However, after 18 hours the dyspnea had again become more severe and a third bronchoscopy was done and the secretion removed. At this time, and in spite of the two previous instrumentations, the larynx was less red and less swollen. The patient rapidly improved and was removed from the croup tent two days later. This patient was observed prior to the advent of sulfanilamide and the related compounds. However, with our present day treatment this drug would certainly be included along with the other medical measures which were carried out. At no time during the course of this case did it seem necessary to do a tracheotomy, although this is demanded in the treatment of some of these cases.

SUPPOSED LARYNGEAL DIPHTHERIA

G. R., a two-year-old boy, previously never ill, developed sudden hoarseness, cough, and dyspnea, followed by an increasing fever up to 105°. He was seen within two hours of the onset by the family physician who at once diagnosed the condition as laryngeal diphtheria, and this in spite of the child having been given an adequate amount of toxoid one year before. A rather large dose of diphtheria anti-toxin was given this first evening and by the next morning the temperature had fallen to 100.8°, and the child seemed considerably improved; a second dose of anti-toxin was given, however. The condition remained the same for seven hours when there was a sudden rise in temperature and all of the symptoms were severely exacerbated. The dyspnea became so urgent that the trip to the hospital was begun at once and oxygen by nasal catheter was given continuously for this hour-long journey.

When the patient arrived he was seen at once and extreme cyanosis, stridor, retraction of the suprasternal and intercostal spaces of a marked degree, fever of 104°, and an occasional croupy cough were noted; the child was unconscious and with the increasing laryngeal obstruction it was at once decided to do a tracheotomy. Preparations were rapidly made but as the patient was placed on the operating table he ceased to breathe. The larynx was exposed and a bronchoscope inserted into the trachea; artificial respiration was begun and after a short time breathing was resumed. A rather large amount of moderately thick grayish secretion was aspirated from the trachea and both main bronchi. The larynx was extremely reddened and what appeared to be a thin layer of grayish exudate was present in the posterior portion of the larynx. The subglottic tissues, as well as the entire tracheal mucosa, were quite reddened and edematous. The inflammatory changes rather suddenly stopped at the beginning of each main bronchus. The tracheotomy was performed with the bronchoscope still in the trachea, it serving as a guide; no anesthesia was used. Following the insertion of the tracheal cannula breathing was quiet and the baby's color had returned to normal.

The medical measures, mentioned in the previous case, were instituted as this was a case of laryngotracheitis of a probable diphtheritic origin. It was necessary to aspirate obstructing

secretions through the tracheotomy tube every 20 to 30 minutes, a soft rubber tube being used and each aspiration was preceded by dropping from 1.0 to 1.5 cc. of saline solution into the trachea. Even with the frequent use of the suction the inner cannula had to be removed and cleaned every two or three hours. Cultures were reported negative for diphtheria, there being a mixed infection consisting of short-chain streptococcus, micrococcus catarrhalis, and staphylococcus. It was now possible to rouse the child sufficiently to give him fairly large amounts of fluids by mouth. Neoprontosil was given in full doses intramuscularly.

A second bronchoscopy was necessary about 24 hours after the first and the tracheal secretion was now quite thick and was forming crusts which had to be removed with forceps. A culture of this thicker crusted secretion revealed a pure culture of micrococcus catarrhalis. The patient continued to take fluids but became gradually more toxic and died the third day after admission. The airway was clear for adequate breathing up to the time of death, but the crusts continued to form and had completely coated over the tracheal wall in spite of all attempts to soften and liquify the secretion. The first culture of tracheal secretion was probably contaminated with mouth secretions, and the neoprontosil certainly had no beneficial effect. The rapidity of the process, the patient being moribund upon arrival at the hospital, makes one wonder if there is anything that can be done in this type of case in which a severe toxemia predominates.

This child did not have a respiratory death as air was entering each lung in definitely adequate amount immediately before death. The culture which the family physician secured when he first saw the patient was also reported negative for diphtheria bacilli by another laboratory; he was, however, justified in assuming the diagnosis to be diphtheria until proved otherwise. The somewhat contradictory bacteriologic reports from the bronchoscopically aspirated secretions indicates that the first culture was certainly contaminated, but these findings probably had no influence upon the outcome of the case.

SUMMARY

I have presented 12 cases of acute respiratory emergencies each representing a different clinical entity. These cases by no means include all the types which may lead to an emergency; other situations can be envisioned in which laryngoscopic or bronchoscopic procedures would be of great value. The cases which have been cited merely represent examples of this class of emergencies treated personally by the writer. All of the patients, except the last one reported, are now living and well, and each one survived a real threat to his continued existence and well-being. When one remembers that the greater majority of patients suffering from such acutely urgent conditions are infants and young children we must realize how necessary it is that we use every diagnostic means available, and without delay. Prompt institution of the proper methods of treatment can be of greatest benefit if we all cooperate in these crises and work for the common good of the patient.

First National Bank Building.

Role of Endocrines in Pediatric Practice

When the physician has good grounds to suspect hypothyroidism in a child, he is justified in determining the effect of thyroid medication. Generally speaking, tolerance for significant amounts of thyroid extract may be accepted as evidence of need for the drug. The initial dose should be small—possibly one-quarter grain, three times a day, increasing it moderately at intervals of alternate days until the child's maintenance requirement has been attained or signs of toxicity have developed. With elevation of pulse rate, flushing, marked perspiration or diarrhea, the dosage should be reduced. The child with normal thyroid function will not be able to tolerate significant amounts of potent thyroid extract for any long period. Once the maintenance, subtoxic dose has been established, its administration should be continued each day without interruption throughout the lifetime of the individual. The safety and adequacy of dosage should be reviewed frequently. The physician should feel the responsibility for taking the initiative in maintaining treatment. We have seen some pitiable instances of children who were started on suitable therapy at a sufficiently early age, but whose parents had allowed it to lapse. As a result the children had relapsed into a state of idiocy for which no noteworthy improvement could be hoped.

Occasionally the physician is tempted to try thyroid medication for the child who is physically and mentally retarded because of mongolian imbecility. Such therapy is without value, and serves only to make the child irritable and unhappy. The mongol is not amenable to endocrine therapy of any type, and it is not kind to build up groundless hopes in the mind of his parents.

Goiter of adolescence is quite common, especially in areas of iodine deficiency. Its occurrence is practically eliminated through the supervised intake of iodine in some form in the diet. The condition of itself seems to be quite innocuous, and it is unwise to treat it in any way other than through the administration of minute amounts of iodine. The taking of two grains of sodium iodide once every two weeks is recommended by some physicians. The use of iodized salt probably is adequate as a prophylactic measure, if the product used is one which retains its iodine content at the time the salt is used. Certain impurities in the salt may lead to the loss of the iodine. Whereas objection has been raised to the promiscuous use of iodine in the diet because of its possible harmful effect on thyroid adenoma, experience seems to indicate that such danger is remote in the population at large.—Julian D. Boyd, M.D., Iowa City, Iowa; Jour. Kansas Med. Soc., Vol. XLI, No. 9, September, 1940.

Ophthalmoscopic Interpretation of Retinal Vascular Disease

WILLIAM F. HATCHER, M.D.

GR^{EAT} progress has been made in the study of the fundus oculi since Helmholtz¹ announced the invention of his ophthalmoscope in 1851. The correlation of ophthalmoscopic and pathologic changes observed in the retinal blood vessels has established a sound knowledge of retinal vascular disease. There are, however, some aspects of ocular vascular disease that are not clearly understood. Interpretation of the ophthalmoscopic appearance of the retinal blood vessels on an anatomical basis is difficult in some instances.

The earliest ophthalmoscopic evidence of disease of the retinal arteries is usually obtained from a study of the central arterial light reflex. If an artery is in a condition of local or general spasm, there will be local or general narrowing of the vessel accompanied by an increased brilliancy and apparent widening of the central light reflex. A diseased process that reduces the transparency of a retinal artery alters the character of the central light reflex. The central light streak becomes obviously brighter, occupies more of the anterior vessel wall and encroaches upon the lateral vascular light reflex. Coincident with the alteration in the central light reflex, evidence of disease of the artery can be seen at arteriovenous crossings. The vein is no longer faintly visible through the diseased overlying artery. At this stage of arterial disease, adventitial changes frequently occur at arteriovenous crossings, resulting in slight constriction of the less resistant vein.

It is difficult to distinguish an increase in brilliancy of the central light reflex of the retinal veins. If, however, the venous light reflex is noticeably dimmed or disappears, it is safe to conclude, in the absence of retinal edema, that the vein is diseased.

As vascular disease progresses and the blood vessels become more opaque, ophthalmoscopic signs occur that, for the purpose of this paper, are considered indicative of an intermediate stage of vascular disease. The central light reflex becomes more brilliant and frequently varies in width on the same vessel, causing a mottled appearance. Occasionally, the light reflex occupies all of the anterior surface of an artery, producing a copper colored effect. Apparent and actual variations in caliber occur. Edema of the wall of an artery or a vein, or of intervening retinal tissue produces a softening of the vascular light reflex. Perivasculitis and vasculitis now occur.

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In many instances, a lateral parallel white line is visible on each side of the diseased vessel. Close observation will reveal that the parallel white lines are part of a thin perivascular cuff of edema. The sheaths of perivasculitis can be differentiated from the congenital connective sheath seen on many blood vessels as they lie on and slightly beyond the papilla. The congenital vascular sheaths are stationary. The acquired vascular sheath becomes more dense and spreads along the peripheral portion of the affected blood vessel.

Definite changes are now visible at arteriovenous crossings. The artery definitely elevates or depresses the vein. The portion of the vein immediately distal to the crossing shows evidence of swelling and distortion.

The advanced stage of retinal vascular disease is easily recognized. Perivascular sheaths spread and thicken until portions or all of the affected blood vessels are covered and rendered invisible. The copper colored blood vessel becomes silvery white, producing the so-called silver wire blood vessel. The disturbance of the vein at an arteriovenous crossing can be so great that very little blood passes through the proximal portion of the vein. The distal portion of the vein can become varicose and tortuous. Tortuosity of the retinal veins is a frequent occurrence. The retinal arteries seldom become tortuous. The arterioles near the macula and papilla sometimes have a wavy appearance.

Thrombosis of the central retinal blood vessels or their branches frequently occurs at this stage of vascular disease. The widespread massive retinal hemorrhage of venous thrombosis is well known. Enormously distended, tortuous veins disappear and reappear in an edematous hemorrhagic retina. Slightly visible, empty arteries in a cloudy retina with a yellow red macula and poorly filled veins are pathognomonic of occlusion of the retinal artery. In neither instance is there true papilledema.

275 W. Federal St.

Read before the Section on Eye, Ear, Nose and Throat, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14-16, 1940.

Urban Safeguards Against Milk-Borne Diseases

HAROLD J. KNAPP, M.D.

AMONG professional health workers discussion of the so-called milk-borne diseases may seem trite. Sober reflection by health officers and periodic inventory of community safeguards are always in order in view of the relative frequency of communicable disease outbreaks definitely proved to be milk-borne in origin. For the period 1923-1937, the sanitation section of the United States Public Service has compiled data relative to the occurrence of 639 outbreaks in the nation, involving 25,863 individuals. Of special significance is the fact that during the five-year period 1933-1937, 91 per cent of the 212 recorded outbreaks were traceable to raw milk.

For the period 1923-1938, the Ohio State Department of Health has collected data relative to 25 outbreaks involving 1,901 individuals, said to have been traced to milk. During the period, 1923-1937, 20 of these outbreaks were directly chargeable to raw milk.

It is not the purpose of the speaker to discuss in the restricted sense the subject of milk-borne diseases, but rather safeguards against them, since in his own community, the City of Cleveland, there has been no proven outbreak of disease chargeable to the milk supply, since the year 1909. Of necessity, therefore, his approach to the subject of safeguards against them must be based upon local experience which may be more or less typical for any large urban area.

Diseases which have been reported on occasion milk-borne are: diphtheria, diarrhea and enteritis under two years, the dysenteries, acute anterior poliomyelitis, streptococcic sore throat, scarlet fever, typhoid and undulant fever. In an effort to establish a relationship between community measures of control and their effect upon the incidence of these diseases on occasion milk-borne, it is necessary to study trends prior to, concomitant with, and subsequent to, the adoption and application of measures of water purification, milk control and organized educational effort.

For the sake of convenience and simplicity the incidence of four of the previously mentioned diseases will be expressed in terms of average number of annual cases and case rate per 100 thousand population during five-year periods, beginning in 1912.

The years 1916 and 1918 marked the beginning

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of intensive efforts directed at the improvement of both milk and water supplies, the former by the enforcement of a pasteurization ordinance, and the latter by the sedimentation and filtration of approximately 70 per cent of the water supply. It should be emphasized, however, that efforts at milk control prior to 1916 through sanitary inspection, and water control by extension of the water intake farther off shore in 1904, and chlorination in 1911, had been undertaken. This improvement of the water supply in itself was followed by a marked reduction in typhoid morbidity, in the five-year period 1912-1916.

The average annual incidence per 100,000 population for five-year periods, from 1912 to 1936, and for the three-year period, 1937 to 1939, for four diseases for which milk or milk products may be vehicles of transmission was as follows:

	Diphtheria		Scarlet Fever		Typhoid Fever	
	Cases	Rate Per 100,000	Cases	Rate Per 100,000	Cases	Rate Per 100,000
1912-16 ...	2366	356	979	148	301	45
1917-21 ...	1733	221	1242	160	151	19
1922-26 ...	1704	202	2121	250	98	12
1927-31 ...	1202	135	1719	173	85	9.5
1932-36 ...	228	25	2850	310	45	4.9
1937-39 ...	66	7	2103	230	32	3.4

DIPHTHERIA

Relative to diphtheria it may be stated that no apparent direct relationship can be demonstrated between the control of the milk supply and marked decline in incidence of the disease from a rate of 356 per 100,000 during 1912-1916, to one of 7 during 1937-1939, especially since in the years subsequent to 1920, intensive educational effort directed at the immunization of the infant and preschool child has been in evidence.

SCARLET FEVER

Scarlet fever incidence by five-year periods, beginning with 1912 indicates marked fluctuations and cyclic manifestations with relatively high

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levels, especially in the quinquenniums 1922-1926, and 1932-1936, with case rates of 250 and 310 per 100,000 population respectively. No relationship between it and the milk supply can be demonstrated. Of interest is the fact that a group of upper respiratory infections including septic sore throat, exhibited an increased prevalence in the five-year period 1932-1936, thus paralleling the high incidence of a mild type of scarlet fever in the same period, but in no manner directing suspicion toward the community milk supply. About 3 per cent of these reportable upper respiratory infections were due to septic sore throat.

TYPHOID FEVER

It seems reasonable to attribute the reduction in typhoid fever since 1916, at least in part, to the effect of a safe milk supply, together with a water supply above sanitary reproach.

As previously pointed out, extension of the water intake in 1904 to a greater distance off shore and chlorination of the city water supply in 1911, were followed by a reduction in case incidence of typhoid to an average annual level of 45 per 100,000 during the five-year period, 1912-1916. Enforcement of pasteurization effective in 1916 followed in subsequent years by an intensive milk control program, together with complete filtration of the city's water in 1925, have been followed by a continuous reduction in morbidity to a low of 3.4 average annual incidence per 100,000 population, during the triennial period 1937-1939.

DIARRHEA AND ENTERITIS

Diarrhea and Enteritis Under Two Years				
	Morbidity		Mortality	
	Cases	Rate per 100,000	Cases	Rate Per 100,000
1912-16	* —	—	762	114
1917-21	* —	—	575	73
1922-26	256	31	239	28
1927-31	164	18.5	93	10.4
1932-36	108	12	25	2.7
1937-39	100	11	26	2.7

* Cases not reportable—1912-1921.

The reduction of diarrhea and enteritis among infants under two years since 1917 has been most spectacular from an average annual mortality rate of 114 per 100,000 population during the five-year period 1912-1916, to a low of 2.7 in the three-year period 1937-1939. It should be emphasized that in Cleveland infant welfare work was begun in 1906 with the establishment of infant clinics and the promotion of an intensive educational program. In so far as the mortality of diarrhea and enteritis are concerned, no consistent downward trend was evident in the period between 1906 and 1917. A safe milk supply

coupled with the educational efforts of community health agencies, official and voluntary, have been important agents in the almost complete elimination of diarrhea and enteritis as an important cause of infant morbidity.

DYSENTERY, ETC.

The low incidence and distribution of dysentery (amebic and bacillary), acute anterior poliomyelitis and undulant fever during the entire period 1912-1939, do not establish any basis for a relationship between them and either the milk or water supplies of the community.

In commenting upon the principal safeguards against diseases frequently milk-borne it would seem appropriate to stress improvements in procedures which have been developed subsequent to the advent of pasteurization, which became effective in 1916. It may be assumed that the water supply had ceased to be an important factor as a vehicle of disease transmission through universal chlorination in 1911, and improvements effective in the period 1918-1925 consisted mainly of sedimentation and filtration.

MILK CONTROL

A well rounded milk control program must provide for country inspectional activities which encourage an adequate supply of good quality, and a city control routine which reasonably insures its safety.

In country milk control it is important for the health administrator to realize, that through practical educational methods, the quality of milk products may be maintained and constantly improved. A most intensive farm inspection program even though it insures a sanitary environment for milk handling, provides for medical inspection of employees, and eliminates bovine tuberculosis and contagious abortion from herds, cannot be expected to completely safeguard a community, without effective pasteurization. Vice versa, it may be asserted that pasteurization even though rigidly enforced, cannot convert an insanitary product into one of superior quality. It is also accepted that the limit of pasteurization efficiency probably is about 99 per cent.

From the standpoint of practical economics, it is quite possible that a health agency relying upon strict pasteurization and rigid so-called platform exclusion methods alone, may seriously interfere with an adequate flow of milk into the community, and thus injure a considerable portion of its health program. From the standpoint of budgetary limitations the health administrator is often obliged to restrict his activities in country milk inspection, so that the cost of purely quality maintenance must be borne in part by the industry, which however, is entitled to the fullest cooperation of the official inspectional agency. This latter statement relative to the assumption

of inspection costs by the industry is also particularly applicable in instances where producers are located beyond the limits of a reasonable inspectional zone.

With the cooperation of producers, simple laboratory procedures, such as the methylene blue reductase test and direct microscopic counts may be performed at collection centers and cooling plants, thus eliminating poor products.

The city activities of a milk control program must be so integrated with farm inspection, that those portions of the supply not passing through cooling stations located in the country, are systematically examined at pasteurizing plants by the same tests as used in the country. This latter procedure serves to control the sanitary quality of milk of the direct shipper from the farm to the plant.

Relative to plant inspection, Cleveland experience has demonstrated that more effective control of pasteurization may be obtained by stationing inspectors in plants at periodic intervals for the entire working day rather than by frequent sanitary inspectional visits. An inspector spending an entire day at least monthly in each plant is enabled to become thoroughly acquainted with details of operation, to check methods and perform pasteurization efficiency tests.

By local regulation, plants which process special grades of milk in addition to the regular market grade, are obliged to bear the cost of such supervision, inspectors being selected by the Division of Health. Of interest is the fact that in the City of Cleveland 13 distributors so handle special grades of milk, and utilize the services of 11 inspectors at the expense of their industry. These 13 plants distribute approximately 50 per cent of the community supply. It is thus evident that this special regulatory feature of the city plant control procedure, being practically self supporting, reduces the cost of inspectional control and permits more intensive inspectional supervision over those plants handling only regular milk.

In an effective milk control program the laboratory plays an indispensable part, especially in the control of pasteurization, the most effective barrier against the milk-borne diseases. From the viewpoint of the health administrator although the laboratory should be a valuable adjunct in the maintenance of standard of quality, nevertheless, its all important function is to pass final judgment upon the safety of a community milk supply. Its judgment should be rendered as a result of regular and frequent examinations in sufficient number. The most important laboratory examinations which must be carried on are: bacteriological, indicating total counts and the presence or absence of coliform organisms, and finally the conduct of frequent phosphatase tests. The phosphatase test, de-

veloped in recent years, is the most reliable indicator of pasteurization efficiency.

SUMMARY AND CONCLUSIONS

The incidence of several acute communicable diseases in the City of Cleveland during the past 28 years has been reviewed in an effort to establish a relationship between them and recognized community measures of control. This extended experience would seem to demonstrate that improvements in the control of the community's milk and water supplies, together with organized educational efforts have been reflected particularly in the greatly reduced incidence of typhoid fever and diarrhea and enteritis of infants under two years. No proven outbreaks of communicable disease have been chargeable to the milk supply since the year, 1909.

Well organized milk control in its essentials must provide for an educational country inspectional program, maintain quality of products, encourage an adequate flow of milk into the community, and must be supplemented with plant inspectional and laboratory activities, so that the hazards of milk-borne diseases are eliminated. Effective pasteurization is the most important safeguard which can be erected against milk-borne diseases.

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Umbilical Cord in a Tight Spiral Twist Throughout

Mrs. B, age 25, eight months pregnant, reported for examination July 25, 1940, complaining that she had not felt life for several days. She was a well developed, healthy looking woman, with a negative medical history. As a result of previous pregnancies, she had two healthy children and a complete median tear extending about two inches up into the rectum. The present pregnancy had been normal until the cessation of fetal movement. The presentation was breech. There was an unusual quantity of amniotic fluid, and no fetal heart could be heard. The pulse and temperature were normal.

Four days later she went into spontaneous labor and was delivered of a dead macerated fetus. The extremities showed imperfect development and the abdominal wall was not closed anteriorly. The cord was in a tight spiral twist throughout its entire length, giving it the diameter and appearance of an ordinary wrapping string. In numerous places it presented grape-size blebs filled with a blood tinged serum. Despite the cloaca in which the cervix lay, the puerperium was uneventful.

It is obvious that the deep perineal tear and the excessive amount of amniotic fluid permitted the fetus to turn on the cord more readily. The propulsive force is not so apparent.—Mark Houston, M.D., Urbana, Ohio.

Roentgen Kymography in the Study of the Heart in Childhood

J. VICTOR GREENEBAUM, M.D., SAMUEL BROWN, M.D., and
THEODORE SELKIRK, M.D.

THE roentgen kymogram of the heart is a roentgen-ray record of the pulsations of the heart and great vessels taken with a moving film which records permanently the motions observed fleetingly by fluoroscopic examination. The growing use of the procedure makes necessary an acquaintance with this method of studying heart conditions.

The method was introduced into the United States in 1934 by I. Seth Hirsch. Articles by Hirsch,¹ Scott,² and others³ have described the method very clearly. A brief resume of the technique will recall to your minds the essential features.

If a lead plate with a horizontal slit is placed between the patient and the film, the only part of the heart shadow registered on the film is the segment immediately behind the slit. When the film is allowed to move downward the motion of the opposite ends of this horizontal heart segment will be recorded on the film in the form of waves. With a single slit in the lead plate, the movements of only one point on the right side and one point on the left side of the heart borders are recorded. When a number of slits in the lead plate are made, numerous points of the heart borders can be studied simultaneously. Using multiple horizontal slits, the film cannot be allowed to move downward indefinitely, or there would be an overlapping of records. Hence with the common form of lead grid used, in which the slits are 0.4 mm. wide and 12 mm. apart, the film is permitted to move a little less than 12 mm. during exposure. The length of exposure for children is usually one second. By this means one to three cardiac cycles, depending on the heart rate during the descent of the film, are recorded for each point on the heart border, in back of the slits. The intervening distances of the heart border, being covered by the lead plate, make no record at all on the film.

The record of any one point is somewhat like the record made of muscle contraction in a physiological laboratory with a stylus and a revolving drum of smoked paper. In roentgen kymography the movement of a point on the heart is recorded with the roentgen-ray beam acting as a stylus and the moving film taking the place of the smoked drum. Hence the appropriate term roentgen kymography.

Read before the Section on Pediatrics, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14-16, 1940.

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Since the film moves downward, the time on the film flows upward. Thus the point (X) on the curve at the bottom of any frame represents the position of that point of the heart border at the beginning of exposure, and the point (Y) at

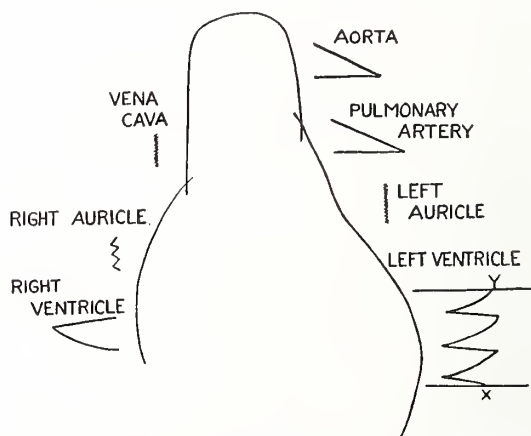


Fig. 1. Illustrates characteristic waves of heart chambers and vessels diagrammatically.

the top of each frame is the position of the border at the end of exposure of the film (Fig. 1). The intervening curve (XY) represents the movements of that point of the border during contraction (systole) and expansion (diastole) of the heart. The lower line of each complete curve in



Fig. 2. Normal Kymogram of child of nine years.

Left Border:

- Frames 1-3—Aortic Waves.
- Frames 4-5—Pulmonary Waves.
- Frames 6-12—Ventricular Waves.

Right Border:

- Frames 1-2—Vena Cava Waves, indistinct.
- Frames 3-4—Ascending Aortic Waves.
- Frames 5-6-7—Right Auricular Waves, indistinct.
- Frames 8-11—Right Ventricular Waves.



Fig. 3. Frames 8-12, right—entire border shows ventricular waves of increased amplitude. Mitral Lesion.

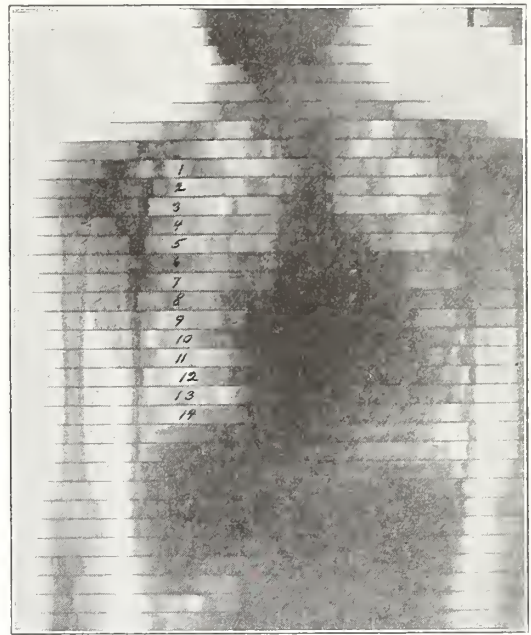


Fig. 4. Frames 4-5, left—show small pyramidal waves characteristic of Congenital Pulmonary Stenosis.

the ventricular area is the diastolic limb, and the upper line from the apex to the trough is the systolic limb. In the aortic and pulmonary areas the reverse is true, that is, the lower line of each complete curve is the systolic limb and the upper line from the apex to the trough is the diastolic limb. As the ventricles contract, the aorta and pulmonary artery expand.

In the past two years, during which we have studied the kymographic method, we first undertook to find out what the normal heart in childhood shown in the kymogram. We have found no published study of the use of the kymograph for any series or group of children. Kymograms of all ages from the newborn through adolescence were taken. Usually children under five years of age could not cooperate sufficiently to hold their breath during exposure. Therefore the records of newborns and children under five had to be discarded. Lack of space prevents us from showing more than one normal case, a child of nine years (Fig. 2) which however is representative of the whole group.

There is a characteristic wave in each part of the heart, left border, right border, aorta, pulmonary artery and auricle. We have found it difficult to secure one plate which shows all of the characteristic waves, therefore these waves are shown diagrammatically in their positions on the heart borders in Fig. 1. The characteristic contours of the waves have been described in detail by Hirsch⁴ and Brown et al.⁵ The shape of the wave depends upon the rate of inflow and outflow of the blood to and from the heart. It has

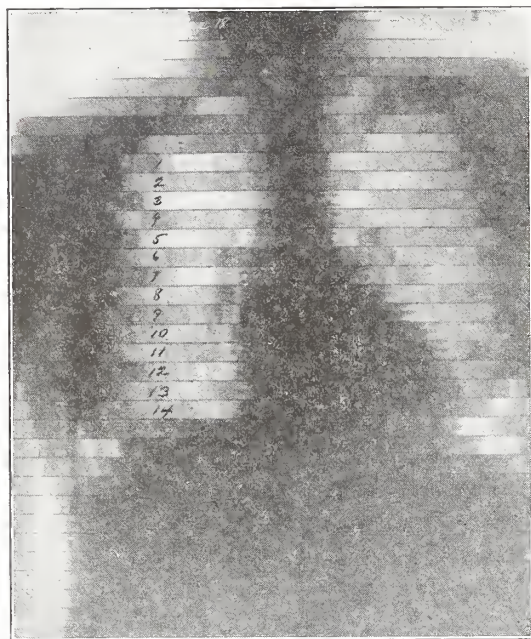


Fig. 5. Frames 3-4, left—show aortic waves of high amplitude with characteristic diastolic collapse.

Frames 4-5-6-7, right—ascending aorta waves.
Diagnosis: Aortic Regurgitation.

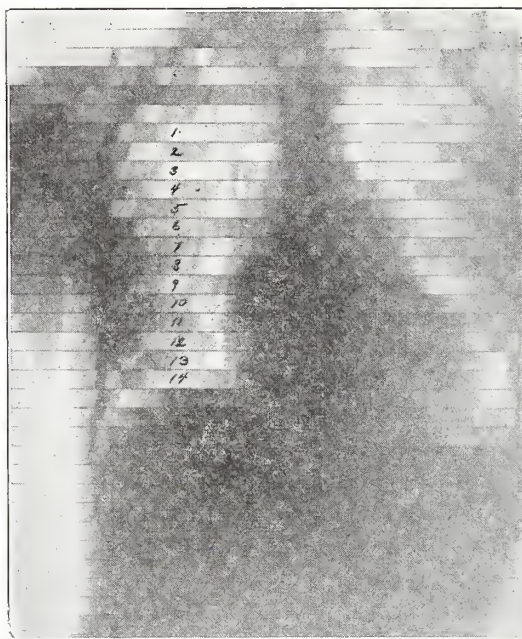


Fig. 6. Frames 2-3, left—show pyramidal aortic waves of small amplitude.

Diagnosis: Aortic Stenosis.



Fig. 7A. Congenital heart showing prominence of right vascular border which, without Kymogram, might be mistaken for Superior Vena Cava.

Shown to be Aorta—see Fig. 7B.

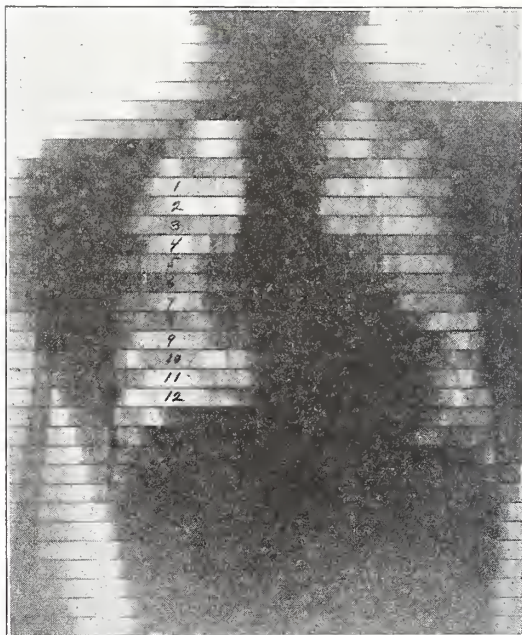


Fig. 7B. Frames 1-2, right—show typical aortic waves in region of Vena Cava.

Diagnosis: Congenital right aortic arch. Confirmed by Barium Oesophogram.

been our experience that the characteristics of the individual waves in children are similar to those of adults. The chief age difference is in the greater number of waves per frame because of the more rapid heart rate in childhood.

During the same period kymograms were made of over one hundred children with congenital and acquired heart disease which furnished material for the second phase of the study. In the kymograms of the abnormal hearts the character of the individual waves for the most part was similar to the normal. Their position on the heart border often varied from the normal because of the shift in the heart chambers. An instance of this is seen in Fig. 3 which shows early mitral stenosis with the right ventricle occupying the entire right border of the heart, a point not possible to determine from the flat plate alone. In congenital hearts the most outstanding change in wave character was in the pulmonary artery waves (Fig. 4). In the cases of acquired heart disease, aortic regurgitation and aortic stenosis showed typical changes. The waves of aortic regurgitation are waves of high amplitude in the ventricle and aorta with collapse of the aortic diastolic limb (Fig. 5). The characteristic waves of aortic stenosis (Fig. 6) are waves of small or normal amplitude with the ventricle showing slow emptying and the aorta slow filling. Other differences of wave character in acquired hearts such as have been reported by various investigators for adults, were not as easily demonstrable because of the more rapid heart rate in our series.

An instance of the value of roentgen kymography is illustrated in Fig. 7A and B. Here the right upper shadow was at first thought to be the superior vena cava. The roentgen kymogram however, revealed typical aortic waves in this region. Further studies showed the oesophagus and trachea to be to the left of the aorta, confirming the diagnosis of right sided aortic arch in a child with congenital heart disease.

Cardiac cases from the Condon School for Crippled Children, the Children's Heart Clinic of the Cincinnati General Hospital, and the Pediatric Service of the Jewish Hospital have provided the cases for this study, and in part for the study reported by one of us (S.B.).⁶

SUMMARY

Roentgen kymography is rapidly developing a place in the study of heart disease in children. At present it is in the investigative phase. It offers aid in the diagnosis of heart disease in childhood in addition to the older roentgenographic methods.

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Advantages and Disadvantages of Prostatic Resection

The transurethral surgical approach for the relief of prostatism has been a controversial subject for the past ten years. Despite much adverse criticism, nevertheless, in competent hands it has been firmly established as the method of choice for the treatment of all but a small per cent of patients who suffer from this ailment. However, the profession has begun to realize it is a procedure demanding the highest developed endoscopic skill on the part of the operator, and unless the surgeon be so equipped through much training and experience, the results in general will be poor. I know of no branch of surgery, unless it is plastic surgery, that reflects more clearly the skill and ability of the operator than prostatic resection.

The absolute requisite to a successful resection is the thorough removal of all obstructing tissue in the bladder neck. This must be excised cleanly and quickly with a minimum of coagulation. To remove less than the quantity required to provide a free passageway for the urinary stream is fraught with danger, for then we have a condition that favors unsatisfactory end results and serious complications, namely, traumatized devitalized tissue complicated by urinary tract obstruction.

In the great majority of instances, an operative period of an hour will provide ample time for the removal of approximately thirty grams of tissue. Not infrequently seventy or eighty grams of tissue will be found necessary for the removal, and in these I believe a repetition of the procedure rather than a single prolonged session will be found more advisable. In an occasional instance where the obstruction is of such size as to require resection of more than eighty or 100 grams of the growth the choice of surgical treatment should be by an open operation.

May I again emphasize that transurethral surgery in the hands of the experienced surgeon is the most desirable method for the treatment of the obstructing prostate. When experience and skill is lacking it is a procedure in which the results that follow are in general most unsatisfactory and not infrequently disastrous.—D. W. Branham, M.D., Oklahoma City; *Jour. Okla. S. Med. Assn.*, Vol. XXXIII, No. 9, September, 1940.

Acute Cholecystitis

ROBERT C. AUSTIN, M.D.

THE most controversial subject related to biliary tract surgery, is the "acute gallbladder". While an occasional surgeon (Wilke '23) advocated immediate or early surgery, there were few proponents of that course prior to 1930. Since then, and particularly since 1936, numerous monographs have presented the merits and criticisms, and by a growing majority well supported by statistics, have indicated a strong trend toward earlier surgery.

The purpose of this paper is to summarize surgical opinion and to add my personal experience.

A MISTAKEN CONCEPTION

The conservative or delayed treatment has been premised upon the fallacious physiologic—pathologic concept that the "acute gallbladder" was caused primarily by infection. There is incontrovertible evidence that in all cases of acute cholecystitis there is a primary obstruction of the cystic duct, 95 per cent of which are due to stones, and that infection is a secondary manifestation.

Denton's work on these early lesions shows that when a stone becomes impacted there is edema and swelling of the wall of the cystic duct, of the periductal tissues, and there results an obstruction to the veins and lymphatics leaving the gallbladder. There follows often a thrombosis of the cystic artery or one of its branches, causing infarction and gangrene. Consequent to a cessation of the flow of bile into the gallbladder, the bile already present is absorbed but the mucous membrane continues to secrete, causing the viscus to become tensely distended with mucous or white bile.

Cystic duct obstruction, impaired circulation and the absence of bactericidal effect of fresh bile, are the essential factors in the cause of acute cholecystitis and its complication of localized infarcts, gangrene and perforation. The cystic duct obstruction is primary and the infection is secondary.

Because of variation of clinical symptoms and that we may have a clear conception of the surgical problem, I may state that we are discussing the following groups:

1. Acute edematous gallbladder (a relatively benign condition).
2. Acute suppurative gallbladder.
3. Acute gangrenous gallbladder.

Read before the Section on Surgery, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14-16, 1940.

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It is the latter class which composes the greatest mortality and morbidity influence, namely, the perforations into the free peritoneal cavity, into an adjacent viscus, or through a localized area surrounded by neighboring structures culminating in a walled off abscess.

The gallbladder colic syndrome of cholecystitis that is relieved by morphine, or is unaccompanied by clinical evidences of acuteness, is obviously not included.

In an effort to ascertain the facts, the following questions are submitted.

1. Is the incidence of perforation sufficiently high to justify a change from the course of awaiting the "cooling off process"?
2. What are the comparative results of non-operative and of early surgery as relates to mortality and morbidity?
3. Do the technical difficulties of surgery outweigh other factors?
4. Are there criteria which will constantly and safely guide us in distinguishing the cases that will get well under conservative treatment?

It has been argued—that perforation rarely occurs; that it rarely empties into the free peritoneal cavity; that it is safe to permit leakage to be walled off and if necessary, a local drainage procedure can be safely done.

There are ample figures to show that the complications of perforation average about 20 per cent. Zininger reports 20.5 per cent; Heuer 25 per cent; Bailey 25 per cent; Taylor 22.5 per cent; New York Hospital 26 per cent; and in a group comprising both public and private cases on our services at Miami Valley and Good Samaritan Hospitals, there is a 30 per cent incidence of perforation and complications thereof.

While we do not have a large array of figures pertaining to mortality of non-operative cases, Taylor presents a study in which the figure was

20 per cent and the morbidity, he states, was large. In the light of an approximate 20 per cent incidence of perforation, and a 20 per cent mortality rate in the non-operative group, it is logical to ask whether mortality and morbidity can be reduced by earlier surgery.

That immediate surgery is rarely necessary, and that early surgery is more descriptive of the attitude of the majority of authorities is supported by literature and personal communications. That immediate surgery may be necessary in the acute gangrenous state, is admitted.

A sufficient number of studies have been presented to show that the mortality is low if the patient has been operated early; that the mortality rises with the advent of perforation and gangrene.

Heuer reports a mortality of 2.1 per cent in which cholecystectomy was performed before perforation. It rose after perforation to 12.5 per cent.

Taylor presents a mortality of 5 per cent in non-perforated cases which rose to 23 per cent in the perforated group and 46 per cent in the gangrene group.

From the standpoint of morbidity, with its economical implications, the patient who is operated early enjoys an uncomplicated convalescence and leaves the hospital as early as the chronic gallbladder individual, while the delayed complicated case is obliged to spend a considerably longer period in the hospital and often after a long interval of disability is obliged to meet the curative operative procedure with its attendant risk related to organized adhesions, impaired biliary function, and with further economic loss.

It is argued that the technical difficulties attending early surgery are prohibitive. Stone and Owings think it is unworthy to compromise a principle of treatment because of lack of skill. I believe that the technique of surgery permits of a safe course. The aspiration of the gallbladder and when necessary dissection from above, in which the vessels the cystic duct and common duct are safely isolated, are points in technique to be emphasized. We have had one death in a group of 22 cases of non-complicated acute cholecystitis, and that death was unrelated to the biliary tract.

While a wide latitude may be given the surgeon relating to his surgical limitations and the condition and the age of the patient in selecting the type of operation, cholecystectomy in the majority of instances may be safely done.

In a position of error in diagnosis, in which an acute obstructive gallbladder is found in a patient who is a good surgical risk, the oft done cholecystostomy is to be criticized because of the attendant morbidity and economic loss. In the elderly group, and in the late secondarily infected or advance gangrene group, a cholecystostomy

under a local anesthesia is the safer choice. The high mortality in the cholecystostomy procedure, given as high as 15 per cent by Heyd, is related to the extremity of a group of patients who have often been conservatively observed by the medical man and the surgeon.

A discussion of gallbladder surgery, and particularly acute gallbladder surgery, would not be complete without adding the topic of anesthesia. In this group of cases, liver function is impaired and though there is a large reserve, ether, chloroform, avertin and some of the gas anesthetics add further to the liver damage.

Spinal anesthesia meets this requirement admirably and further contributes to the facility of technique, to the lack of trauma and to avoidance of spreading secondary infection.

Are there criteria which will constantly and safely guide us in distinguishing the cases that will get well under conservative management? The cardinal symptoms which we evaluate to guide us in diagnosis and prognosis are:

1. Past gallbladder history.
2. Present gallbladder history.
 - (a) Sudden onset of pain, usually referred
 - (b) Nausea and vomiting
 - (c) Involuntary muscle rigidity and marked tenderness
 - (d) Palpation of mass
 - (e) Elevation of temperature
 - (f) Elevated leukocyte count and changed differential picture
 - (g) The not infrequent chill and jaundice.

While an occasional lack of parallelism between clinical symptoms and pathological findings have been noted by the speaker and others, there are some criteria which in the main will serve to guide us.

The increasing leukocyte count, the rising temperature, the duration and continuation of severe pain, a palpable mass with increasing rigidity and tenderness—these, added to the cardinal diagnostic signs are evidences that the obstructed gallbladder is on its way to a catastrophe. The fact that there is some lack of parallelism between clinical symptoms and pathology, is an added reason to support the contention that the by-word in the "acute gallbladder" is "early surgery".

SUMMARY

1. Students of pathology of acute cholecystitis now agree that obstruction to the cystic duct is the primary lesion and that infection is secondary.
2. The incidence of perforation is high.
3. The mortality of early surgery is low as compared to that of medical management and late surgery.
4. The morbidity of the complicated "acute gallbladder" is large.
5. Severity and long duration of pain, increas-

ing leukocyte count, and rise in temperatures, are criteria pointing to perforations.

6. Cholecystectomy in the majority of instances may be safely done in early surgery.

7. If mortality and morbidity are to be decreased, the newer concept of early surgery must be taught to the profession.

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Treatment With Male Sex Hormones

Androgenic hormones, of which testosterone is representative, have been recommended for the treatment of hypogenitalism in childhood and adolescence, impotence and sterility in the male. Warner described the male climacteric and reported the use of testosterone propionate (perandren) in this condition and in male castrates and male involutional melancholia. Beneficial results have been reported from its use in benign prostatic hypertrophy.

Some competent workers have recommended the use of testosterone for certain sex hormone disturbances in the female, such as, to suppress lactation, to control functional uterine bleeding, menorrhagia and metrorrhagia, to relieve the menopausal syndrome, dysmenorrhea and painful breasts.

The action of the male sex hormone in the female would, theoretically, be inhibition of pituitary activity. It is conceivable that the action might also be a direct suppression of ovarian function, with a tendency to masculinization of the female if treatment were excessive or long continued. The author suggests that caution be exercised in the promiscuous use of male and female sex hormones for conditions of the opposite sex, for this is not the method of nature. It seems more rational to use these hormones in a manner comparable to their normal physiological functions in the human.—August A. Werner, M.D., St. Louis, Mo.; *Wisc. Med. Jour.*, Vol. XXXIX, No. 9, September, 1940.

Influence of Sulfapyridine on Pneumonias of Childhood

A six-month study of 85 cases of pneumonia in infancy and childhood treated with sulfapyridine is presented.

Sulfapyridine is a most effective addition to the pediatrician's armamentarium in the treatment of pneumonia, and its ease of administration and comparative inexpensiveness will appeal to all practitioners of medicine.

The optimum dosage and the proper interval of administration of the drug needs further study.

Sulfapyridine has comparatively little effect on preventing the complications of pneumonia or affecting the complications already present.

The antipyretic action of sulfapyridine and the reduction of toxicity in children are quite evident, but it has no effect on hastening the resolution or preventing the spread of a pneumonic process.

In this study abdominal distention was not noted as frequently as in former years, and other therapeutic procedures such as oxygen, transfusion, clyses, etc., were used less frequently.

Comparatively few toxic reactions from sulfapyridine were noted, and only one serious reaction (agranulocytosis) was encountered. Frequent examination of the urine and blood are important during treatment of the patient.

The season of 1939 may not offer a true therapeutic index of the effectiveness of sulfapyridine, as the virulence of the infecting organisms seemed to be less than in previous years.

Further observation of the drug in the treatment of pneumonia in childhood is definitely warranted.—Samuel L. Ellenberg, M.D., and Harry S. Altman, M.D., New York City; *N. Y. State Jour. of Med.*, Vol. 40, No. 19, October, 1940.

VITAMIN-FREE FOODS FOR RESEARCH

A recent announcement by the Research Laboratories of the S.M.A. Corporation reveals that they are now in a position to provide vitamin-free casein and other vitamin-free foods for experimental purposes to researchers who have previously been obliged to manufacture these items for private use.

For many years the S.M.A. Corporation has been producing these foods exclusively for use in their laboratories. Now, with the expansion of their own facilities and the realization of the convenience to others engaged in laboratory work this offer is made to provide vitamin-free diets at an exceptionally reasonable cost. Quantities of one, five, ten or 100 pounds or more may be ordered directly from the Research Laboratories, S.M.A. Corporation, Chagrin Falls, Ohio.

Immediately Preoperative, Fatal Pulmonary Embolus

R. R. RENNER, M.D. and K. S. RUSSELL, M.D.

PULMONARY embolus is not uncommon. However, a search through the literature of the past decade reveals no similar case reported from the standpoint of the time of occurrence.

History: Mrs. A. E., age 37, referred by Dr. L. K. Boswell, was admitted to Huron Road Hospital on August 5, with a chief complaint of swelling of the abdomen with pain over the left side. Family history as well as the past personal history was negative. In regard to the present illness, it was found that during her normal menstrual period on July 29, she noticed moderate swelling of the abdomen which continued to increase in size. In addition, severe pain occurred intermittently in the left lower quadrant which was regarded as menstrual cramps by the patient. For the past two months urgency of urination was present.

Physical Examination: A white female, weighing 169 pounds, 5 feet 1 inch in height and in good state of nutrition. The only positive physical findings were in the abdomen which consisted of a large palpable tumor about the size of a six months' pregnancy in the lower mid-abdomen, freely movable. There was shifting dullness with a fluid wave present. A paracentesis was done, removing about 2000 cc. of straw colored fluid, giving the patient considerable relief.

Laboratory Findings: Urine analysis was negative. The hemoglobin was 62 per cent with a red count of 3,660,000 and a white count of 25,000 with 84 per cent neutrophils.

The case was scheduled for an exploratory laparotomy, August 16 at 9:30 a.m. The preoperative diagnosis was a cystadenocarcinoma of the ovary.

Preoperative medication consisted of pentobarbital sodium gr. $1\frac{1}{2}$ at 7:30 a.m., followed by morphine sulphate gr. $\frac{1}{4}$ with scopolamine gr. 1/100 by hypodermic at 8:30 a.m. The patient was sent to the operating room at 9:30 a.m. and was then re-checked by the surgeon and the anesthesiologist. She answered questions readily. Her blood pressure was 130/70, pulse 110, regular and of good volume; respirations quiet and full. At 9:35 a.m. the patient was wheeled into the operating room. The operation was to be done under spinal anesthesia supplemented by cyclopropane. However, before the orderly arrived to turn the patient for the spinal injection, the anesthesiologist noticed a sudden change in the patient's appearance. The patient was now markedly cyanotic and comatose.

The respiratory rate was 35, volume good with bilateral expansion of thorax. An airway was inserted and 100 per cent oxygen administered by mask. Pulse was 165, regular and full; blood pressure 100/50.

10:10 a.m.—Condition continued the same up to this time. Respiration 30, pulse 165, blood pressure 105/80. Ephedrine sulphate mgm. 50 were given intramuscularly.

The Authors

● Dr. Renner, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1923; member American Association for the Advancement of Science; associate visiting surgeon, Huron Road Hospital; demonstrator of anatomy, Western Reserve University.

● Dr. Russell, Cleveland, Ohio, is a graduate of Hahnemann Medical College, Philadelphia, 1937; member American Society of Anesthetists, Inc.; resident anesthesiologist, Huron Road Hospital, Cleveland.

10:45 a.m.—Condition still unchanged. Although 100 per cent oxygen had now been given for over one hour the marked cyanosis had not decreased. Therefore massive doses of subcutaneous oxygen were started and repeated every 10 to 15 minutes. These injections were made beneath the skin of the thighs, lateral abdominal regions and the breasts and continued until the skin was taut over these areas. At this time X-rays of the chest were taken followed by electrocardiograms of the heart; both were negative.

10:55 a.m.—Condition unchanged. Metrazol 3 cc. were given intravenously with no noticeable effect.

11:30 a.m.—Condition still the same. The oxygen mask was removed for 10 minutes and the patient aroused. She talked rationally, complained of being very tired and requested to be placed in a more upright position, which was done. Until now the patient had been in the supine position on the level operating room table. Dextrose 10 per cent with digofoline 6 cc. was started by vein. The patient seemed to lapse into coma again so the oxygen mask was replaced. Blood pressure at this time was 100/60. The question arose as to whether the abdominal fluid could be the cause of the respiratory embarrassment. With this in view, abdominal paracentesis was done. Only a small amount of fluid was obtained with no respiratory improvement.

11:45 a.m.—Caffeine sodium benzoate gr. 7.5 by vein.

12:00 noon—Oxygen mask removed for five minutes. Cyanosis seemed to increase, dyspnea became severe. Pulse 188, blood pressure 120/70. Then abruptly the pulse was no longer palpable and respiration ceased. The oxygen mask was replaced and artificial respiration given by bag pressure. Heart action was still present.

12:10 p.m.—Heart stopped. Intracardiac injections of caffeine sodium benzoate and adrenalin were administered. No effect was noted.

12:15 p.m.—Patient pronounced dead.

An autopsy was performed immediately which disclosed a large "v" shaped thrombotic embolus riding over the point of bifurcation of the pul-

monary artery, the free ends extending into the right and left pulmonary arteries. Its total length was about 15 cm. and completely filled the lumen of the arteries. Early lamination and surface film deposit was present indicating that the clot was several hours old. The source of the embolus was thought to be in the broad ligament where several inflamed, thrombotic veins were found. The preoperative diagnosis was confirmed and a papillary cystadenocarcinoma of both ovaries was found which had metastasized to all the abdominal viscera and peritoneum.

COMMENT

Fatal pulmonary embolus occurring prior to an operation is of particular interest to the anesthesiologist. If the spinal anesthetic had been administered a few minutes earlier when the patient's condition was apparently good, undoubtedly a question would have been raised as to the part played by the spinal anesthesia, especially if an autopsy had not been obtained.

The attending surgeon considered the Trendelenburg operation for pulmonary embolus but because carcinomatosis was suspected, it seemed inadvisable to place the responsibility of her demise upon the Trendelenburg procedure.

The liberal use of subcutaneous oxygen may have been a factor in keeping the patient alive two and one-half hours.

Cardiac Edema

Is digitalis a cardiac stimulant or a cardiac sedative? This point has been debated since the time of Withering. At present we may say that in relation to its effect on the rate of the heart digitalis is certainly a sedative but in regard to its effect on the tone of the heart (resistance to filling) digitalis is a stimulant. A reduction in the heart rate may be of great importance in certain cases and especially in patients with auricular fibrillation since the irregular tachycardia wastes the energy of the heart and is harmful. In many cases, however, digitalis produces benefit with only slight slowing of the heart rate which action appears to be not as important as its effect on cardiac size. The elimination of pulse deficit, in patients with congestive heart failure and auricular fibrillation, tends to increase the efficiency of the heart but many patients with no pulse deficit are benefited by digitalis so this effect must be regarded as a secondary one.—Evert A. Bancker, Jr., M.D., Atlanta; Jour. Med. Assn. of Ga., Vol. XXIX, No. 9, September, 1940.

It would seem that poverty and unusual stress and strain should be—more so than they frequently are—the guide-posts for case-finding programs.—Max Pinner, M.D., Amer. Rev. of Tuber., Sept. 1940.

Diverticula

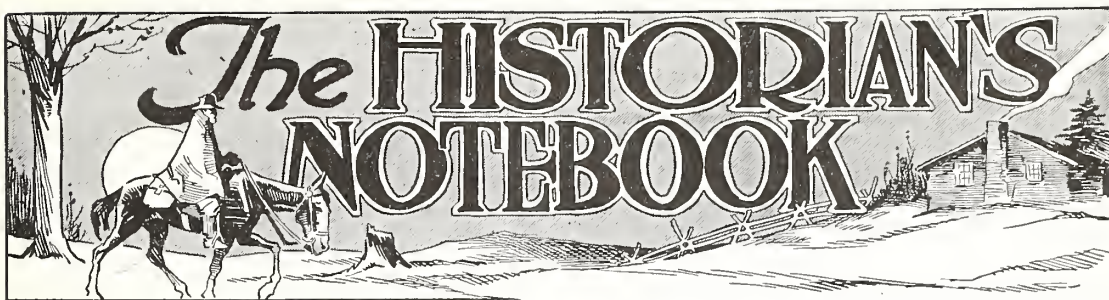
Diverticulitis occurring in Meckel's diverticulum has been long recognized as a not infrequent cause of an acute abdomen; during the present century diverticula in other portions of the intestinal tract have come to be known as acting in a similar capacity. Acute inflammation, localized abscess, gangrene and perforation with resultant peritonitis, and obstruction all are noted as a result of their presence and disease. Hemorrhage and perforation complicating peptic ulcer in Meckel's diverticula are being recognized with increasing frequency as urgent indications for prompt surgical intervention. None of the symptoms are pathognomonic and a differential diagnosis can not be made on clinical evidence alone. Diverticula of the stomach, duodenum and jejunum are not infrequently associated with ulcer, pancreatitis and cholecystitis and when so the history will show the symptoms of the latter to predominate or else becloud the picture. With the exception of hemorrhage the symptomatology of the lesions produced by Meckel's diverticulum closely mimics that of the appendix and clinically is not distinguishable from it; the presence of an umbilical fistula or the occurrence of such symptoms in a patient from whom the appendix had been removed would afford a suggestive lead. Diverticulosis occurs far more frequently in the colon than elsewhere in the intestinal tract; autopsy records would indicate its frequency at 5 per cent of all persons over 40 years of age and clinical observation has shown it present in the colon at practically all ages.—Irvin Abell, M.D., Louisville, Ky.; W. Va. Med Jour., Vol. XXXVI, No. 10, October, 1940.

Management of Tetanus

Review of recent literature points to the inadequacy of tetanus antitoxin as a specific therapeutic measure in a full-blown case of tetanus unless early administration of moderate amounts of the serum is possible. Large amounts of serum and its intraspinal administration appear to be contraindicated.

Management of symptoms is still of primary importance in the treatment of tetanus. The relief from muscular spasm during the period of elevated body temperature, the lessened danger of a complicating toxic reaction by reason of smaller sedative requirement, and the cooperative emotional reaction largely owing to lessened fear and panic—all of these may be considered as benefits directly related to the hyperpyrexia.

The possible relationship of ascorbic acid and hyperpyrexia to tetanus toxin is offered as a matter for speculation. Clinical studies will be conducted with a view to proving or disproving this relationship.—Philip H. Heersema, M.D., Rochester; Minnesota Medicine, Vol. 23, No. 9, September, 1940.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Seth Hattery

THOMAS A. McMILLAN, Massillon, Ohio

HE did much that you would expect him to do. The Massillon Independent states that "his death . . . removes a national figure" because Seth Hattery was the oldest living Kiwanian. Age was his only spectacular quality, and he could not very well help that. "I have never been a sensational man and have always accepted things moderately." Since he was born during the gold rush of '49 (July 7, 1849, at Sugarcreek) and finished high school about the end of the Civil War, we know little of his boyhood. He was born the son of a thrifty Ohio farmer, probably of French descent. He had the usual highly practical rearing of the farmer's lad, went to Shanesville District School—a typical "little red schoolhouse."

Hattery early decided he wanted to be a doctor. This ambition, first to become a physician, then to do his best in the profession, dominated his life. It was impossible for his parents, thrifty farmers though they apparently were, to wrest enough from the soil to send him to medical school. He had to make his own way.

He had early been recognized as a brilliant student. "He was perhaps the most outstanding student in the Shanesville Normal School", says a schoolmate and distant relative. "He had a way of seeing through things, and he could explain things so clearly. He was always called on to explain difficult problems." And Hattery had not only the ability to see through things, but also an almost uncanny ability to see through people.

With this talent for scholarship, it is natural that Hattery should turn to schoolteaching. For eight years he was a village teacher, teaching at half a dozen different schools during that time. During these eight years of schoolteaching, he attended Normal School during many of the summers. It is here that we have our first close glimpse of him.

He was known to have a keen sense of humor, to be a good mixer on occasion, but the occasions were infrequent. He was not primarily after a good time. He didn't go out much "for a good time with the boys."

One of the ladies who went to Normal School with him says that in those days she never saw him spend a nickel "for anything that bordered on foolishness." He could not do so without hindering his progress toward a medical education. And that was his driving ambition. Here developed a trait of thrift which was later to carry itself to an extraordinary degree.

He liked schoolteaching and was quite a success at it. But he never regarded it as an end in itself, but rather as "a stepping stone to medicine." He was all for the books. In this devotion to hard work, especially in academics, he seemed justly to place a large part of his hope for success.

"He wanted to be somebody, to be a doctor," continues his schoolmate. "We knew he would make it. He knew he would make it." This is typical of his lifelong determination, his quiet confidence that his ambition would be achieved.

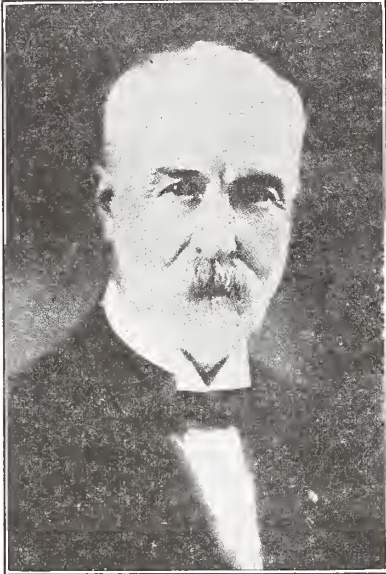
It was. After eight long years as a teacher he entered Bellevue Hospital College in New York City, which he considered one of the best medical schools in the country. In 1879, when he was 30 years old, he graduated from that institution.

As he hung out his first shingle in Bolivar, Ohio, his ambition took the form of impatience to establish his practice. The story is told that when several hours passed without a call and without any patients coming to the office, he would grab his satchel, climb hurriedly into his pony-drawn buggy, drive madly through town in an attempt to attract attention, and return after perhaps three-quarters of an hour.

In 1882, three years after he went to Bolivar, he married Miss Cora Woodling, of Beach City.

She had previously been his pupil in school. Ten years the doctor's junior, she lived with him until her death in 1938, two years before the doctor's passing.

On his medical practice the Massillon Independent writes, "Dr. Hattery always was a gen-



SETH HATTERY, M.D.

eral practitioner. . . He belonged to the old school. He was family physician, counselor, and guide."

Yet the doctor fully realized the value of specialization. "Skin disease is such a complex affair that general practitioners do not have the time and cannot afford to neglect their other duties to give it proper study", he contended, when at 88 years of age he began the study of skin diseases. Earlier, in 1891, he had gone to the New York Polyclinic Institute, where he spent much of his two-year course in the specialized study of the eye, ear, nose, and throat. After this graduate work, he established his practice in Massillon.

Hattery, who from the first was "good at book-learning", always studied extensively in the field of medicine. He would let no medical journal or pamphlet escape his eyes. But eager as he was to keep abreast of the most modern medical developments, he usually rejected new methods of treating patients in favor of the old and tried. One of his lifelong patients characterizes him as a "hot-water doctor." He frowned on hospitalization and operation except as a last resort. His remedies were usually simple, almost always effective.

Hattery was always available anywhere. He promptly answered calls on the most blustery of nights in the most inaccessible of places (not only when establishing a practice in his Bolivar days, but until he was 85 years old). His work

was his life. His housekeeper tells me that even when he was up in the seventies, he would leave the house at eight o'clock in the morning, not to return except for meals until eleven o'clock at night, having spent the intervening time making calls, at his office, or at the hospital.

His patients' faith in him was complete. One for whom he had been family doctor for 15 years had this to say: "We had absolute faith in him. If he had told my mother 'I'll cut off your arm and sew it back on,' Mother would have believed him". And why should the patients' attitude not be thus. Hattery seldom lost a patient. In the considerable number of families to whom I have talked who had him as a family physician, none mentioned a loss in the family for which Hattery was blamed.

Also, his appearance was such as to inspire confidence. He always appeared in a long, pointed tailcoat, winged collar, with neatness appropriate to an evening party. His hair, and full, pointed beard, white since he came to Massillon at 43, furthered the impression of masterful poise and confidence. Seth Hattery was proud of his record of seldom losing a patient. His calm elation at this success is vividly expressed in his remark after a long illness in 1930. Looking over the names of a number of people who had died during his sickness, he said, "That's a shame. If I had been well, look at all the people who wouldn't be dead."

With this combination of ability, diligence, and confidence-inspiring attitude, Hattery came to have one of the largest practices in Massillon. "He brought into the world thousands of children". In many cases he brought into the world three generations of the same family.

Financially the doctor was prosperous. Not only did he have the income of a highly successful physician, but also from several investments he had been able to make. He was stockholder, then director, then president of the State Bank in Massillon. He held a number of pieces of farm land. He actively oversaw the work on one of these, bought food and equipment, making decisions about marketing, planting, rotation of crops, and countless other things. As a physician, farmer, and banker, he became well-to-do.

His personal spending, or rather the lack of it, is startling in view of his known income. The thrift which was forced policy in his school-teaching days had been so thoroughly ingrained that he could not escape it. When the ink on his desk dried up he would sweeten it with water. When asked for money for groceries, he would plunk down the exact coin needed for a loaf of bread, or other specific item, and no more. The trait carried itself to the point that one distant relative, knowing from experience that she could not depend on table fare, brought her own groceries whenever she visited.

But what of Hattery's attitude in other money matters? The habit did not carry over. It had been established in regard to personal spending. In that phase of money matters, and in that phase alone, Hattery seems miserly.

But take the case of his policy toward renters of his property. One renter became disabled and could not work for a while. His wife did washings, scrubbed, did everything within her power for an income. During this period of trial, Hattery reduced the rent to one-third the original price.

Then, too, the doctor's books were kept only haphazardly. Some patients never saw him record anything, were asked what they thought they owed Hattery for.

And, most important of all, take the way Hattery dealt with patients who he felt were honestly trying to meet their obligations but were simply unable to pay. His patience and attitude were phenomenal, especially when we remember that this is the same man who refused to replace his ink.

One patient related almost word for word the conversations which took place between himself



The Old Hattery Homestead

and Hattery when he was up against it financially. They are worth repeating.

"I'd had the Doc for a lot o' things. I'd had him operate on my nose. I or the wife or one o' the kids had gone to him a bunch o' times for one thing or another. And we'd had him for the last kid. It was about six months after the kid came that I had any money for the Doc.

After inquiring how much he owed his grocer and butcher, Hattery said, "Better pay them first." Still later, when the patient called to make a payment on his account, the doctor inquired, "How much've you got for me tonight?"

"I got twenty dollars for you, Doc."

"How about the wife and kids? How're they fixed for clothing?"

"Well, that's something we're not in such good shape on."

"You better take that money and buy some clothes for them," he says."

Seventeen months after the child had been

born Hattery first accepted the man's money—ten dollars. A month later he took another fifteen dollars and gave the patient a receipt marked "paid in full"—for a nose operation, a confinement case, 11 or 12 house calls, and 27 office calls!

Politically, the doctor was a staunch and active Democrat. He served a term as councilman, initiating and passing the bill to erect Massillon's present city hall. For one term he was state Democratic committeeman. In 1928 he was a delegate to the Democratic national convention in Houston, Texas.

In several ways Hattery failed to adapt himself in later years. We have already spoken of his reluctance to accept new methods of medical treatment. Then, too, there was the automobile. It was a valuable addition to any doctor's equipment. But it first came into general use when Hattery was well up in his sixties, and he was one of the last doctors in Massillon to use a car. He was traditionally "Second Gear Hattery" because of his failure to use the high gear. The first time he returned from a call in his Buick touring car he turned into the driveway, pulled into the garage, yelled "Whoa!", and fully expected the car to stop.

But just as Hattery did not "shift into high" and quickly acquaint himself with all the contrivances of our streamlined age, just so did he not slacken his pace in the things to which he was accustomed. At the time of his death he was serving his eleventh consecutive term as president of the State Bank, having missed practically no meetings during those 11 years. He had risen through the ranks of Masonry to the thirty-second degree and a life membership in Cleveland's Al Koran temple. He was secretary-treasurer of the Massillon Pythian Home. He had become the oldest living Kiwanian in the world. This honor was contested by a Pennsylvanian, who after much correspondence was found to be 15 days younger. Except for his deafness toward the end, his company in these fraternal and service orders was thoroughly enjoyed.

Until his wife passed away when he was 88, Hattery maintained a downtown office and kept regular office hours. During his last two years he had his office at his residence. There he began his study of skin diseases, of which I have previously spoken. He continued practice right up until his final illness. One patient called at his office the day of his death, not knowing of his sickness.

Seth Hattery was not a spectacular man. I have talked to people in Massillon who never heard of him. His name will have no place in the history books of tomorrow. But to thousands of people he will be remembered as one who brought relief from pain, from suffering, and from the valley of the shadow. To him that was enough.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

EPIDEMIOLOGICAL TRENDS OF TUBERCULOSIS

WHEREVER tuberculosis strikes first, it is in primitive societies. By "primitive" is meant a society previously not or hardly in contact with the occidental civilization and a society that for a long period has lived in essentially unchanged, settled conditions—a population without history in the common sense of the word. Tuberculosis never comes alone to an untouched population; it always comes accompanied by, and rather through, agents of occidental civilization. It is, therefore, always associated with profound changes and disturbances of tribal life. These changes play a most significant role in shaping the epidemic features.

The most complete epidemiological studies of tuberculosis in a relatively primitive society were made on the South African tribes that provide the laborers for the mining industry in South Africa. These studies are reviewed by the author. He points out that the epidemiological picture of South African natives is not a uniform one as these natives have been observed under three different living conditions, namely, in their native villages, during labor service in mines and during war service in France.

A more mature stage of the epidemic is illustrated by tuberculosis as it occurs in the American Negro. The tuberculin index is higher than in the white American, the death rate about three times as high and the peak of the age incidence is at an earlier age. Furthermore, the shift of this peak toward older age groups, while pronounced in the white, is negligible in the Negro.

Many Negroes show the same chronic localizing type of disease as the whites, but relatively acute forms, generalizations in the form of lymphatic and hematogenous spread occur with much greater frequency in Negroes than in whites. This was demonstrated by the author in a previous study and in order to confirm these findings, he calculated the ratio of deaths from all forms of tuberculosis to deaths from disseminated tuberculosis, separately for the two races. The figures derived from the United States mortality statistics show that the relative frequency of disseminated forms is considerably higher in Negroes and that the decrease of disseminated forms during the last 17 years is much smaller in Negroes than in whites.

Several studies of tuberculosis among Negroes and whites under identical or similar living conditions, show that while the morbidity rates are

closely similar, the mortality rate for the Negro is about four times higher than for the white. One writer concluded that the chances for colored children (in Baltimore) to become infected in a tuberculous family are about equal to those of white children under similar circumstances, but the chances of dying from tuberculosis are three times greater in Negro than in white children.

Lack of space prohibits quotation of the author's discussion based on his observations but the following points stand out:

In the early phases of tuberculosis the disease is acute, rapidly fatal, generalized, without tendency to heal, with toxemic symptoms overshadowing local symptoms and has a predilection for the young.

No nation or tribe free of tuberculosis has a uniformly high susceptibility to tuberculosis. The complete lack of resistance in so-called virgin soil is a myth. The individual degree of resistance and the collective frequency of the disease are not simply matters of interplay between host and bacillus but they are profoundly influenced by living conditions in the widest sense of the word.

The most spectacular decrease in tuberculosis mortality occurred, as a rule, before any organized campaign against tuberculosis could be initiated. However, anti-tuberculosis work is undoubtedly effective in later phases of the epidemic.

The South African report makes it clear that previous infection did, in no noticeable way, modify or alter tuberculous disease that developed later. A primary infection in a not highly resistant stock produces allergy without causing immunity.

There is no shred of evidence to show that immunization is transmitted by heredity. The elimination of the least resistant strains must undoubtedly play an important role in the gradual attenuation of tuberculosis, particularly so in the early phases of the epidemic.

The danger that an acute and virulent epidemic may sweep again through our population sometime after tuberculosis has been eliminated (or reduced to its minimum) because the immunizing effects of infection would then be lost, would appear slight. A population that has survived a tuberculosis epidemic and has rid itself of it is hardly comparable to a "virgin-soil" population.—Max Pinner, M.D., *American Review of Tuberculosis*, Vol. XLII, Sept., 1940.

Proceedings of The Council

Proposed Enabling Act for Medical Service Plans Approved at October 13 Meeting; Legislative, Preparedness, Workmen's Compensation Questions Considered.

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Sunday, October 13, 1940, State Headquarters Office, Columbus. The following were present: President Skipp, President-Elect Paryzek, Treasurer Beer; Councilors Schriver, Hogue, Noble, McCormick, McNamee, Rutledge, Goehring, Swan, Sherburne, and Burley; Dr. Hein, chairman of the Committee of Public Relations and Economics; Delegates to the A.M.A., Drs. Alcorn, Steinke, and Kiely; Executive Secretary Nelson, Asst. Executive Secretary Saville, and Director of Public Education Aszling.

On motion by Dr. McNamee, seconded by Dr. Noble, and carried, the minutes of the meeting of The Council on July 7, 1940, were approved as published in the August issue of *The Journal*.

Membership statistics were announced as follows: Membership of 6,397 on October 13, 1940, compared to 6,255 as of the same date a year ago and to 6,388 as of December 31, 1939.

Members of The Council reported on visits to and activities in county medical societies in their respective districts.

ENABLING ACT APPROVED

Dr. Hein, chairman of the Committee on Public Relations and Economics presented, on behalf of that committee and the Committee on Medical Service Plans, a draft of the Proposed Enabling Act for Medical Service Plans to be sponsored by the State Association in the 1941 Session of the Ohio General Assembly. There was a general discussion of the proposal and a number of technical revisions, suggested by legal counsel of the State Association, were made. On motion by Dr. McCormick, seconded by Dr. Hogue and carried, the revised proposal was approved.

Also, Dr. Hein discussed briefly the educational program on behalf of the enabling act, being conducted by the Committee on Medical Service Plans. On motion by Dr. Schriver, seconded by Dr. McNamee and carried, The Council approved the activities of the committee as now being carried on.

LEGISLATIVE AND PRE-ELECTION ACTIVITIES

On behalf of the Sub-Committee on Legislation of the Committee on Public Relations and Economics, Dr. Hein presented a detailed report on the work of the Legislative Committee and local legislative chairmen in interviewing candidates, and on plans for dissemination of information about candidates to members of the State Association. On motion by Dr. McNamee, sec-

onded by Dr. Hogue and carried, the work of the committee and the method of distribution of the information recommended by the committee were approved.

REGISTRATION OF LABORATORIES

A plan for voluntary annual registration and approval of intra-state Federal, municipal, private, and hospital laboratories by the State Department of Health for performance of sero-diagnostic tests for syphilis was considered. The plan drafted by the Advisory Committee on Serodiagnosis of Syphilis of the State Department of Health, of which Dr. Walter M. Simpson of Dayton is chairman, had been approved by the Committee on Public Relations and Economics at its meeting on October 6. Dr. Hein, in discussing the proposal, informed The Council that his committee recommended that The Council also approve the proposal. On motion by Dr. McNamee, seconded by Dr. Hogue and carried, the plan was approved.

COOPERATION WITH STATE MEDICAL BOARD

Dr. Hein reported that Dr. J. H. J. Upham, president of the State Medical Board, had appeared before the Committee on Public Relations and Economics on October 6 for the purpose of urging closer cooperation between the Ohio State Medical Association and the State Medical Board on matters of prosecution of violators of the Medical Practice Act and on obtaining additional appropriations for the Board. A letter from Dr. Upham to Dr. Skipp, the President, making certain suggestions as to how the State Association can assist the Board on such matters, was read to The Council. After thorough discussion and on recommendation of the Committee on Public Relations and Economics, The Council, on motion by Dr. McNamee, seconded by Dr. Hogue and carried, approved the recommendations made in Dr. Upham's communication to Dr. Skipp and pledged the active assistance of the Ohio State Medical Association and its component county medical societies to the State Medical Board on matters of prosecution, finances, and other activities of the Board.

OTHER QUESTIONS REPORTED BY COMMITTEE

Dr. Hein, on behalf of the Committee on Public Relations and Economics, presented the following questions and recommendations:

Medical Care of Indigent—It was reported that the committee at its meeting on October 6 had held a preliminary hearing on Resolution F,

adopted by the House of Delegates at the May, 1940, Annual Meeting of the State Association. Dr. Hein stated that Dr. H. H. Musser, Akron, had appeared before the committee to discuss the subject covered by the resolution, namely: Equalization of remuneration received by physicians for the care of recipients of state and Federal medical aid. Dr. Hein reported that the committee felt it advisable to hold additional hearings before making any decision. On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**. The Council instructed the committee to continue its consideration of this question.

Tuberculosis Program—Consideration was given on October 6 to a proposal for a tuberculosis educational program in Ohio and the establishment of a organizational setup to further such program, Dr. Hein reported. Members of The Council expressed themselves as believing that it would be advisable for the committee to give additional consideration to this proposal and, on **motion** by Dr. Paryzek, seconded by Dr. Swan and **carried**, the committee was instructed to continue its study of the proposal and to invite those interested in its adoption to appear before the committee at its next meeting.

Autopsies—Communications from Cleveland and Cincinnati citing the need for legislation which would permit autopsies on the bodies of persons receiving state aid, who are without relatives having legal authority to give consent, were considered by the committee at its October 6 meeting, Dr. Hein reported. He stated the committee expressed itself as being willing to cooperate in the drafting of a legislative proposal on this subject but that the committee also felt that such legislation should not be sponsored by the Ohio State Medical Association. On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, the recommendations of the committee on this question were **approved**.

Sales Tax Changes—Dr. Hein reported that his committee had approved proposed changes in the Ohio Sales Tax Regulations governing sales by oculists, optometrists, and opticians. The revisions would eliminate the present requirement that oculists who furnish lenses and frames to patients must obtain a vendor's license, issue sales tax stamps, and collect the sales tax from such patients. Under the proposed new regulations oculists would not be considered vendors but the tax on lenses and frames would have to be collected by opticians (manufacturers or jobbers). It was the recommendation of the committee that The Council approve the revisions. On **motion** by Dr. McCormick, seconded by Dr. Hogue and **carried**, this recommendation of the committee was **approved**.

Welfare Exhibit—On **motion** by Dr. Sherburne, seconded by Dr. McCormick and **carried**, a recom-

mendation by the Committee on Public Relations and Economics authorizing the Bureau of Public Education to sponsor an exhibit at the Ohio Welfare Conference, was **approved**.

WORKMEN'S COMPENSATION

A detailed report on a meeting of the Sub-Committee on Workmen's Compensation on October 5, 1940, was presented by Dr. Hein, chairman of the Committee on Public Relations and Economics and chairman of the sub-committee. Among questions considered and presented to The Council were the following:

New Regulations—On **motion** by Dr. Schriver, seconded by Dr. Sherburne and **carried**, The Council **approved** the recommendation of the Sub-Committee on Workmen's Compensation that The Council approve the following regulations:

"Bills for all hospital services, as distinguished from medical treatment, shall be rendered to the Industrial Commission on hospital fee blank, C-16.

"If there be no attending physician, an intern or resident must sign the C-1 or C-3 giving all data but omitting charges. He shall designate his rank under his signature. For this first aid service the hospital may render its bill on form C-16 for the use of the emergency room equal to one-half the per diem rate.

"The hospitals, if they, in an emergency, render the first aid, shall refer the case for subsequent treatment to a physician of the injured person's choice, unless the case comes within the scope of the self-insurers. In no event shall the hospital be paid for re-dressings by employes such as interns, residents and nurses.

"Hospitals conducting X-ray departments, no matter what contracts they may make with their radiologists, must conform to the rules that govern radiologists in private practice. This includes all hospitals whether they include or exclude X-ray in their contract per diem rate.

"The radiologist must render his interpretation of the film over his signature. The radiologist who interprets the film must render the bill on form C-19 and not on a hospital fee blank, C-16.

"The original film or a satisfactory reproduction showing the pathology must be in the possession of the Industrial Commission before fees for X-ray service are paid.

"No fees will be paid to the hospital in ambulatory minor cases for re-dressings by the attending physician. These cases are expected to report to the physician's office, not the hospital."

On **motion** by Dr. Schriver, seconded by Dr. Noble and **carried**, The Council **disapproved** a proposed regulation limiting the use of assistants at operations in hospitals to interns or residents, where available, except in unusual cases. The Council rejected the proposed regulation on the grounds that such a regulation could not be

applied at present and would not be for the best interests of patients.

On motion by Dr. Schriver, seconded by Dr. Sherburne and **carried**, The Council approved the action of the sub-committee in rejecting a proposed regulation attempting to correct abuses involving the use of hospital emergency rooms and dispensaries for the treatment of patients with minor injuries. In adopting this motion The Council **approved** a suggestion of the sub-committee that an effort be made to draft a statement of policy on this question for consideration of The Council at its next meeting and which, if adopted, could be used as the basis for an educational program to acquaint physicians with the important angles involved and in an effort to minimize present abuses.

Legal Responsibility—Dr. Hein reported that the Workmen's Compensation Committee had considered a question as to whether or not a physician should be paid by Industrial Commission for services performed by an intern or resident acting on the instructions of the physician, although the physician did not personally render the service and did not actually see the patient. He stated that there was a detailed discussion by the committee of the legal responsibility of such physician. Believing that additional information would be necessary on this important matter, Dr. Hein stated that his committee had instructed the Executive Secretary to obtain advice from the legal counsel of the State Association and certain insurance companies writing professional liability insurance, and that the entire matter would be considered at the next meeting of the committee. **On motion** by Dr. Goehring, seconded by Dr. McNamee and **carried**, this action of the committee was **approved**.

X-Ray Regulations Approved—A recommendation of the Sub-Committee on Workmen's Compensation approving a ruling of the Medical Division of the Industrial Commission limiting X-ray work to duly licensed physicians and surgeons and dentists, the latter being restricted to X-ray of the teeth, mandible and maxillae, was **approved** by the Council **on motion** by Dr. McNamee, seconded by Dr. Burley and **carried**.

MEDICAL PREPAREDNESS

Dr. Paryzek, chairman of the Committee on Medical Preparedness, presented a detailed report on the activities of his committee to date. He reported that local committees on medical preparedness had been established in each county by the county medical society. Also, Dr. Paryzek reported that a complete list of medical examiners and alternates for local draft boards had been assembled by his committee, through recommendations received from the local medical preparedness committees, and would be turned

over to the Governor in the near future, the Governor having requested the assistance of the Ohio State Medical Association on this matter. In addition Dr. Paryzek reported his committee, at the request of the Governor, is assembling lists of physicians qualified to serve on district advisory boards and is cooperating with the American Medical Association in assembling the names of physicians who may care to serve on induction boards. Council was informed by Dr. Paryzek that the State Headquarters Office had just received a list of Ohio physicians who have not returned the A.M.A. preparedness blank and that in the near future lists of delinquents would be furnished to local medical preparedness committees for follow-up activities. **On motion** by Dr. McNamee, seconded by Dr. Rutledge and **carried**, The Council expressed appreciation to Dr. Paryzek and his committee for this excellent work and **approved** its activities to date.

AMENDMENTS APPROVED

A report from Dr. James G. Kramer, Akron, chairman of the Judicial and Professional Relations Committee, was presented. That committee, having considered proposed changes in the Constitution and By-Laws of the Columbus Academy of Medicine, recently adopted by the Academy, recommended that such changes be approved. **On motion** by Dr. McCormick, seconded by Dr. Sherburne and **carried**, the recommendation of the committee was **approved**.

The committee recommended that amendments to the Constitution and By-Laws of the Athens County Medical Society, with revisions in Chapter 4, Section 5, suggested by the committee, be approved. **On motion** by Dr. Swan, seconded by Dr. Paryzek and **carried**, this recommendation was approved by The Council.

1941 ANNUAL MEETING

Consideration was given by The Council to questions of selecting a headquarters hotel for sessions of the House of Delegates in Cleveland during the week of the 1941 Session of the A.M.A. in that city, June 2-6, and of designating the time for the sessions of the House of Delegates of the State Association.

Headquarters Chosen—**On motion** by Dr. McCormick, seconded by Dr. Sherburne and **carried**, The Council selected Hotel Cleveland as the headquarters hotel, it having been reported that Hotel Cleveland would be available and is desirous of entertaining the House of Delegates of the State Association at that time.

Sessions Arranged—**On motion** by Dr. McCormick, seconded by Dr. Swan and **carried**, the following schedule for meetings of the House of Delegates of the State Association in Cleveland was **adopted**: First Session—Tuesday afternoon, June 3, 4 o'clock. Second Session—Wednesday

evening, June 4, 6:30 o'clock; dinner to be followed by business session, the dinner to be complimentary to delegates and tickets to be made available to members of the Ohio State Medical Association in Cleveland at that time, who may desire to purchase a ticket and attend the dinner.

Funds Authorized—On behalf of Dr. C. L. Cummer, Cleveland, who will be General Chairman of Local Arrangements for the A.M.A. meeting, Dr. Paryzek presented a request that the State Association cooperate with the Cleveland Academy of Medicine in the financing of necessary activities for the entertainment and convenience of officials and delegates of the A.M.A. during the 1941 session in Cleveland. On motion by Dr. McCormick, seconded by Dr. McNamee and **carried**, The Council voted that an amount not to exceed \$1,600 should be appropriated from the funds of the State Association for use by Dr. Cummer and his Committee on Local A.M.A. Arrangements.

MISCELLANEOUS

Mr. Saville, Assistant Executive Secretary, presented a report on the Regional Postgraduate Lectures held to date.

A resolution adopted by the Summit County Medical Society requesting managements of hospitals in Summit County to select interns from persons who are qualified to be candidates for medical licensure in Ohio, was discussed and, on motion by Dr. Schriver, seconded by Dr. Paryzek and **carried**, was ordered filed.

The question of membership status and State Association dues of physicians inducted into military service was discussed informally. On **motion** by Dr. Paryzek, seconded by Dr. Beer and **carried**, action was deferred and the question was ordered scheduled for consideration by The Council at its December meeting.

There being no further business, Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Columbus Children's Hospital To Hold Annual Clinic Day on November 14

The Columbus Children's Hospital is conducting its second annual clinic on Thursday, November 14, 1940. As in the previous year, ward rounds, clinico-pathological demonstrations, and brief talks on important topics of pediatrics will be held during the day. Dr. James L. Wilson, professor of pediatrics at Wayne University College of Medicine, Detroit, will be the guest speaker for the evening. Registration will begin at 10:30 a.m. and luncheon and dinner will be served at the hospital for those who attend. One dollar registration fee will be charged, which includes both meals. Dr. Emmerich von Haam is chairman of the Program Committee.

State Association Presents Exhibit at Ohio Welfare Conference

Health education activities of the Ohio State Medical Association were stressed in an exhibit staged by the Bureau of Public Education at the 50th annual Ohio Welfare Conference held at the Hotel Deshler-Wallick in Columbus, October 15 through 19.

This booth marked the first time the State Association has been officially represented at the state welfare meeting. It was invited to exhibit along with a group of other agencies interested in health, including the State Department of Health, the Ohio Public Health Association, The Maternal Health Association, and the American Social Hygiene Association.

Chief item in the exhibit was a large, colorful banner which pointed out that the State Medical Association and county medical societies were excellent sources of accurate and authoritative health information and that social workers would do well to seek the cooperation of medical organizations in planning health education programs. The role of physicians in health education, via radio, newspaper columns, the speaker's platform, and other media, was dramatized.

Also at the booth samples of health information furnished to newspapers by the Bureau of Public Education were on display, and copies of the health quiz which was administered at the 1940 Ohio State Fair were available to interested persons. A new pamphlet prepared by the State Association to explain why Ohio needs an enabling act for medical service plans was distributed.

Coming Meetings

American Medical Association, Cleveland, June 2-6, 1941.

American Academy of Pediatrics, Memphis, Tenn., Nov. 18-20.

American College of Physicians, Boston, April 21-25, 1941.

American Society of Tropical Medicine, Louisville, Nov. 12-15.

Central Society for Clinical Research, Chicago, Nov. 1-2.

Radiological Society of North America, Cleveland, Dec. 2-6.

Southern Medical Association, Louisville, Nov. 12-15.

Southern Surgical Association, Hot Springs, Va., Dec. 10-12.

Western Surgical Association, Topeka, Kan., Dec. 6-7.

Governor Bricker, in Talk at Ottawa, Thanks State Medical Association for Its Help on Administrative Details

THREE valuable scientific papers and a timely luncheon address by Governor John W. Bricker were program features at the annual meeting of the Northwestern Ohio Medical Association held in Ottawa, Tuesday, October 1. Attendance at this yearly gathering of physicians in the Third and Fourth Councilor Districts numbered about 150.

The all-day program included morning and afternoon sessions at a local theater. Speakers were Dr. Fred W. Rankin, of Lexington, Ky., who discussed "Cancer of the Lower Gastro-Intestinal Tract," and Dr. Julien E. Benjamin and Dr. J. Victor Greenebaum, both of Cincinnati, whose topics were "The Experience and Treatment of Pneumonia During the Past Five Years" and "The Status of Immunization Procedure in Infancy and Childhood", respectively.

At the noon luncheon, served in the Masonic Temple, Governor Bricker spoke in terms of high praise for the "splendid cooperation of the medical profession" when he discussed the various relationships of physicians to the state.

APPRECIATES AID GIVEN HIM

"I want to take this opportunity to express my appreciation to this section of the medical profession and to the Ohio State Medical Association for the fine cooperation you have given in helping get the draft board machinery started," the Governor said. He explained that the hurried establishment of selective service organization in Ohio had made heavy demands on his time and that he was glad to rely on the Medical Preparedness Committee of the Ohio State Medical Association in making recommendations for examining physicians.

While speaking of the cooperation with medical organizations which his administration has enjoyed, Governor Bricker said specifically that he has been pleased by the valuable and effective contacts which the Ohio State Medical Association has maintained with the state departments of health and welfare, as well as with his own office.

He spoke also of his reliance on the assistance of the State Association when selecting qualified personnel for appointment to medical and health positions in the state government.

CONDEMNNS GOVERNMENT CONTROL

Mr. Bricker prefaced his remarks at the Ottawa meeting with comments about the change in the relation of the medical profession to governmental agencies. He talked to the physicians as

a member of one learned profession speaking to those of another, and he made frequent comparisons between medicine and the legal profession.

"Many of us can remember," he said, "when about the only governmental interest in the professions was in regulation and licensing. In recent years, however, there has been more and more expansion of government authority into the fields of medicine and law. More and more attention is given to the public employment of physicians and attorneys. This has meant a great change in the relationship of the professions to the government."

The Governor indicated that he is opposed to further extension of government into the private practice of the learned professions. That, he said, is one of the many current trends in the psychology of the American people which indicate a "deplorable lack of faith in ourselves and our future."

Making frequent reference to this "lack of faith and hope" as a fundamental ill in contemporary American life, Mr. Bricker asserted that the medical profession must assume the leadership in helping to restore that faith and hope. "If there is one profession on the face of the earth," he declared, "that ought to accept its responsibility to lead humanity back to faith, back to a belief in the universe, it is the medical profession—for one reason, because you physicians have studied the physical properties of that universe and understand it better than the rest of us."

SUBVERSIVE GROUPS RAPPED

Speaking as a student of law, Governor Bricker explained the legal structure of American government and its guarantees of individual liberty and justice. He recounted the development of the Anglican system of law, under which, he said, "one third of the world lives today enjoying its fundamental theory of the rights of man." He traced the American system of checks and balances and government by court precedent back to the Battle of Hastings and the legal organization established by the Duke of Normandy.

"And now," he continued, "this system of democratic government, which we have jealously defended for centuries, is challenged today as never before. There are groups in our midst who are sworn to destroy it, and thousands of those people sign petitions to put their political parties on our democratic ballots. Thank heavens, that will not happen in Ohio this year. The time has come to write it into the law that the Communist

and similar anti-democratic parties never shall appear on our ballots."

The Governor devoted a large portion of his discussion to the threat of despotic government and the disappearance of democratic traditions throughout the world. "I recall," he said, "how Germany, under the terms of the Treaty of Versailles, began methodically to build the bodies of its youth in order to make the false challenge to the world which they are making today. How much more important it is that we in this country—particularly you physicians—build strong bodies in our boys and girls to make the challenge of freedom!"

"There is a great need today," he continued, "for a rebirth of spiritual life in America. Here is where a great responsibility rests on the medical profession. For doctors, as community leaders, can lead the reawakening of a spiritual life and a confidence in ourselves and our future."

The Governor related several anecdotes from his own experiences with faculty members and students at the Ohio State University College of Medicine, and these, he said, have served to make him more aware of the "grave trust which is shouldered by anyone who enters the practice of medicine today."

DR. PARYZEK SPEAKS

Before Governor Bricker was introduced, Dr. Harry V. Paryzek, President-Elect of the Ohio State Medical Association and chairman of its Committee on Medical Preparedness, discussed current activities of the State Association. He urged the physicians present to attend the Regional Postgraduate Lecture series and to inform themselves about the association's Enabling Act for medical service plans. He also reminded them of the importance of registering and voting and of the ways in which they can assist in the legislative program of the State Association.

Dr. Paryzek detailed the activities of the Medical Preparedness Committees and urged all members to cooperate with state and local committees to the fullest extent. He discussed the preparedness questionnaire sent out by the American Medical Association and made a strong plea for a 100 per cent return, "even if you only sign your name and address."

New officers elected at the meeting are the following: Dr. Fred Maurer, of Lima, president; Dr. B. F. Mowry, of Lima, vice president; Dr. C. L. McKibben, of Toledo, secretary; and Dr. John Leahy, of Tiffin, treasurer. It was decided to hold next year's session in Napoleon.

Cleveland—Dr. C. A. Bowers gave an address on "The Role of the Non-University Hospital in a Teaching Program for Graduate Training in Surgery", at the conference held on graduate training in surgery at the clinical Congress of the American College of Surgeons in Chicago, October 21-25.

Membership in the Ohio State Medical Association hit a new all-time high—6,405—on October 17, compared with 6,276 on the same date a year ago, and 6,388 on December 31, 1939. The Association had 5,488 members on December 31, 1935.

Ohio Bacteriologist Joins Group To Do Public Health Work in France

Dr. N. Paul Hudson, professor and chairman of the Department of Bacteriology, Ohio State University College of Medicine, has been granted a year's leave of absence to do public health work with the Rockefeller Foundation in France. As a member of the Foundation's Health Commission to Europe, Dr. Hudson and other public health specialists were scheduled to leave late in October by clipper for Lisbon on their way to France. Dr. Hudson will represent the field of bacteriology and epidemiology on the Commission. He has served previously with the International Health Division of the Rockefeller Foundation in yellow fever research in West Africa. Last summer he was in Mexico for a study of tropical diseases.

According to Foundation officials the Commission has been created "for the purpose of rendering the greatest possible service in the public health field to regions severely affected by the present war and afflicted with refugee problems, disorganization of sanitary services, war-engendered epidemics or nutritional deficiencies."

Dr. Hudson came to Ohio State in 1935. Previously for five years he had been professor of bacteriology at the University of Chicago. Work in France will not be new to him as he was there during the last World War as a second lieutenant in the Sanitary Corps of the Medical Department of the United States Army.

Cleveland Museum to Open, November 12

A three-day program starting Tuesday, November 12, will mark the opening of the Cleveland Museum of Health and Hygiene at 8811 Euclid Avenue in the home presented by Mrs. Francis F. Prentiss. Dr. Victor G. Heiser, consultant for the National Association of Manufacturers and author of "An American Doctor's Odyssey", has been invited to speak at a civic luncheon, November 13. Others invited to participate include Dr. W. W. Bauer, director of health education of the American Medical Association; Surgeon General Thomas Parran and Dr. Haven Emerson, New York City. The first day of the program will be devoted to a preview of the museum displays by the 750 members of the museum. A special program is being arranged by Dr. Bruno Gebhard, director, for November 14, when the museum will be opened to the public.

What? Why? How? Who?

**TIMELY QUESTIONS AND ANSWERS ABOUT MEDICAL SERVICE PLANS
AND THE OHIO ENABLING ACT TO BE SPONSORED BY THE OHIO
STATE MEDICAL ASSOCIATION IN THE 1941 LEGISLATURE**

New Questions and Answers Each Month

THIS is the second of a series of questions and answers on Medical Service Plans and the Ohio Enabling Act, which will be sponsored by the Ohio State Medical Association, in the 1941 session of the General Assembly. In presenting this monthly feature, The Journal will attempt to give all members information which will be useful to them in mobilizing support for the enabling bill.

* * *

4. Who would be eligible for benefits under a medical service plan?

The theory behind medical service plans is to provide a means whereby persons in the low-income group may obtain more adequate medical care and health protection for themselves and their dependents by systematically budgeting the costs of medical and health services. Therefore, only those whose annual income is less than a stipulated amount would be eligible to become subscribers. The income "ceiling" would be established in the by-laws or regulations governing the plan in operation. The proposed Enabling Act makes no mention of income limits. The reason for this is sound. What is considered a low income in one area (let us say a metropolitan community) may be regarded as a comfortable annual income in some other part of the state (for example, in a predominately rural section). Therefore, the participation income limit can not be fixed on a state-wide basis but must be determined locally, where it can be based on local conditions and circumstances. Income limits set in some of the plans now in operation in other states range from \$1,000 to \$2,500, depending on the economic conditions of the territory in which a certain plan is operated.

5. How and by whom would a medical service plan be administered?

Administrative control under the Ohio proposal would be vested in the medical profession of the territory in which the plan is operated. This is a sound provision. Since the only benefits offered would be in the form of services by physicians and since physicians would in effect be underwriting the plan by agreeing to provide necessary services to subscribers, the medical profession should have supervisory authority over administrative details. However, the Enabling Act provides for representation from the public on the governing board. This is a good provision as the success of any plan would depend on cooperation between the profession and the public. Provisions for selection of the board and for administration would be included in the articles of incorporation, the by-laws or the regulations under which the plan would be operated. As a protection to the public, the Enabling Act sets forth certain requirements pertaining to the financial affairs of the plan, placing enforcement of them in the hands of the State Division of Insurance. This provision will be discussed later in this series of questions and answers.

6. Where may a medical service plan be started after the Enabling Act becomes law?

The proposal is quite specific on this point. After numerous provisions pertaining to organization and financing are complied with, the corporation proposing to operate a medical service plan can not obtain a license to do so until the medical profession of the territory to be served has approved the plan itself and all features of the organization. In other words, a plan can not be operated in a given county and no person residing in that county may be accepted as a subscriber to that plan until all features of the undertaking have been approved by the medical society of that county. This important provision guarantees to the physicians of each community (1) the right to weigh evidence as to the need for a medical service plan in that community; (2) the right to decide what kind of plan shall be operated in event they agree that a plan is needed; and (3) the right to determine how the plan shall be set up and administered.

SEE NEXT ISSUE FOR ADDITIONAL QUESTIONS AND ANSWERS

Message from the President

VOTE ON NOVEMBER 5—VOTE ADVISEDLY AND INTELLIGENTLY!

By WM. M. SKIPP, M.D., YOUNGSTOWN

Members of the medical profession of Ohio will have an opportunity within a few days to go to the polls to help elect local, state and national officials representing all branches of our government. We, as citizens of this great nation, have had a sacred privilege bestowed upon us by our Constitution, namely, the privilege of selecting those whom we believe to be best fitted for positions of public trust. Such rights have been wiped out in many countries. Therefore, we should joyfully take advantage of this great opportunity by going to the polls on November 5. As a matter of fact, it is our duty to do so.

These are trying times. For that reason much thought should be given to the qualifications of those who will make our laws, administer them and interpret them. It is our duty to see that those of ability are elected to public offices and that only those who honestly and sincerely believe in the democratic principles on which our nation was founded are selected. This is an obligation of all patriotic citizens.

As physicians, we owe it to the people and to ourselves to do what we can to see that our public offices are filled with those who believe in free enterprise and are unwilling to see the practice of medicine placed under political, bureaucratic domination.

It is our duty before we cast our vote for a candidate to be sure that he understands the position of the medical profession with respect to existing legislation pertaining to public health and the practice of medicine. Also, we must determine that he will oppose proposals which would destroy health safeguards or shackle the medical profession with governmental control.

Those members of the medical profession who do not have proper information on candidates still have an opportunity to obtain such information. The legislative committees of all county medical societies and of the State Association have been working diligently during recent months assembling such data. Ask your local legislative committee for advice. Some of the information pertaining to candidates which has been collected will be distributed to all members prior to November 5. Read it; analyze it; use it to help you decide which candidates deserve your support! Tell your patients, friends and members of your family how the candidates stand on medical and health questions! The medical profession is not concerned about party politics but it is concerned about seeing that properly qualified persons, regardless of party affiliations, are elected to public offices.

Be a loyal physician; be a patriotic American; vote on November 5—vote advisedly and intelligently!

State and Local Medical Preparedness Committees Assist Governor in Picking Medical Examiners for Draft Boards and Personnel for Advisory Boards

AT the request of Governor John W. Bricker, the Committee on Medical Preparedness of the Ohio State Medical Association has been taking an important part in helping to set up the machinery in Ohio for carrying out the provisions of the Selective Service Act.

Due to the splendid cooperation of the presidents of all county medical societies, a committee on medical preparedness has been organized by every county medical society. These committees have been of indispensable assistance to the State Association committee.

In compliance with a request from Governor Bricker, the Ohio State Medical Association through the Committee on Medical Preparedness has furnished to the Governor a list of qualified physicians for positions as medical examiners and alternate examiners for the 330 local draft boards. This list was assembled through the help of the local medical preparedness committees. Each county committee was requested to name examiners and alternates for the draft board or boards of that county, and the complete list was assembled at the Headquarters Office, Columbus. It is anticipated that the Governor will appoint the medical examiners from this list.

COLONEL BOUCHER APPOINTED

During the past month, Major General Gilson D. Light, adjutant general of Ohio, has been named chief of Selective Service in Ohio and Dr. Howard E. Boucher, Columbus, Lt. Colonel and executive officer of the 112th Medical Regiment, Ohio National Guard, has been appointed chief medical officer for the Selective Service setup. A native of Bryan, Dr. Boucher graduated at the Ohio State University College of Medicine in 1910. He is a member of the senior surgical staff at White Cross and Children's Hospitals, Columbus, and a member of the courtesy staff in other hospitals in that city. During the last World War Dr. Boucher went overseas as captain and commanding officer of the 146th Ambulance Company of the 37th Division. He was later promoted to the rank of major in the 112th Sanitary Train, and took part in the Argonne offensive in France and the Ypres-Lys offensive in Belgium. Dr. Boucher is a member of the Columbus Academy of Medicine, the Ohio State Medical Association, the American Medical Association, and the Association of Military Surgeons of the United States.

Within the next few weeks, the Committee on Medical Preparedness will submit to the Gover-

nor, at his request, the names of qualified specialists for the Medical Advisory Boards in Ohio's 22 Congressional Districts. These boards will serve as medical boards of appeal for doubtful or contested cases involving draftees.

The Committee on Medical Preparedness also will assist the Committee on Medical Preparedness of the A.M.A. and the War Department in



LIEUT. COL. HOWARD E. BOUCHER

selecting qualified specialists for the medical induction boards which will give physical examinations to the men accepted by the local draft boards for active service, immediately prior to the time the draftees are inducted into the army.

THREE BOARDS IN OHIO

There will be three medical induction centers in Ohio, namely: Fort Hayes, Columbus; Toledo; and Cleveland. The War Department expects to fill the positions on the induction boards from among volunteers and from recommendations which may be made by the Committee on Medical Preparedness of qualified specialists who will be willing to serve on such boards.

A review of the functions of the induction boards and other pertinent information about such boards were carried in the following article

published in the October 12 issue of *The Journal of the A.M.A.*:

VOLUNTEERS ACCEPTED

"After registrants are accepted by local draft boards they will be sent for physical examination to medical induction boards. About one hundred such boards will be set up throughout the country, about half of them near army posts and stations. Each board will consist of three internists, one general surgeon, one orthopedic surgeon, two ophthalmologists, one otorhinolaryngologist, one neuropsychiatrist, one clinical pathologist and one dentist.

"As explained by Colonel Love last week in *The Journal* (pages 1201-1202), the specialists to be assigned to such service will probably include civilian specialists as well as reserve officers, who will be on temporary duty. Civilian physicians will be on a per diem basis and will be used as long as their services are required. It has been proposed that they be paid at the base pay of major with allowances for travel and subsistence while on duty. Physicians preferred for this service are those who, on account either of age or of physical infirmities or because of reasons affecting their civil life, cannot go into military camp. It has been tentatively estimated that the time required for this service might approximate twenty to thirty days in the period between October 16 and February 1.

"In order to aid the Army Medical Department in securing physicians for this service, the Committee on Medical Preparedness requests physicians who wish to volunteer to write at once to the Committee on Medical Preparedness, 535 North Dearborn Street, Chicago, marking the envelope 'Induction Boards.'"

Ohio specialists who wish to serve on induction boards may submit their names to the American Medical Association, as suggested above, or with the State Association Headquarters Office, Columbus. Appointments will be made by the War Department.

DELINQUENTS TO BE SEEN

The Committee on Medical Preparedness of the A.M.A. has supplied the State Association's committee with the names of Ohio physicians who have not returned the A.M.A. Preparedness Questionnaire. These names are being assembled by counties and lists will be mailed shortly to local preparedness committees, suggesting that the delinquents be seen and requested to send in a completed questionnaire immediately.

Between 25 and 30 medical reserve officers in Ohio have been ordered into active service for a period of one year and additional reserve officers will be called to active service as additional medical personnel at the training camps is needed.

Youngstown—"Prevention and Control of Cancer", was the subject of an address made by Dr. E. C. Baker at a meeting of the Women's Federation at Niles.

Venereal Disease Control Program for Camps and Military Areas Established

Army and Navy and civilian health authorities will cooperate in active control of venereal disease in areas where armed forces and national defense employees are concentrated under a joint agreement by the War and Navy Departments, the Federal Security Agency and State Health Departments.

Under the agreement the following activities will be carried out:

1. Early diagnosis and adequate treatment by the Army and the Navy of enlisted personnel infected with the venereal diseases.
2. Early diagnosis and treatment of the civilian population by the local health department.
3. When authentic information can be obtained as to the probable source of venereal disease infection of military or naval personnel, the facts will be reported by medical officers of the Army or Navy to the State or local health authorities as may be required. If additional authentic information is available as to extramarital contacts with diseased military or naval personnel during the communicable stage, this should also be reported.
4. All contacts of enlisted men with infected civilians to be reported to the medical officers in charge of the Army and Navy by the local or State health authorities.
5. Recalcitrant infected persons with communicable syphilis or gonorrhea to be forcibly isolated during the period of communicability; in civilian populations, it is the duty of the local health authorities to obtain the assistance of the local police authorities in enforcing such isolation.
6. Decrease as far as possible the opportunities for contacts with infected persons. The local police department is responsible for the repression of commercialized and clandestine prostitution. The local health departments, the State Health Department, the Public Health Service, the Army, and the Navy will cooperate with the local police authorities in repressing prostitution.
7. An aggressive program of education both among enlisted personnel and the civilian population regarding the dangers of the venereal diseases, the method for preventing these infections, and the steps which should be taken if a person suspects that he is infected.
8. The local police and health authorities, the State Department of Health, the Public Health Service, the Army, and the Navy desire the assistance of representatives of the American Social Hygiene Association or affiliated social hygiene societies or other voluntary welfare organizations or groups in developing and stimulating public support for the above measures.

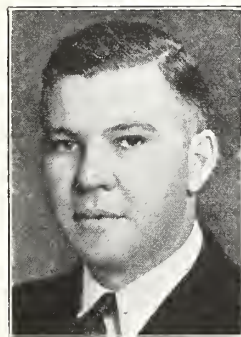
Members, Totaling 801, Attend Opening Sessions of Regional Postgraduate Lectures; Schedule of November Meetings



Ralph G. Carothers, M.D.



C. W. Engler, M.D.



C. E. Kinney, M.D.



Judson D. Wilson, M.D.

EXACTLY 801 physicians attended the opening sessions of the 1940 Course of the Regional Postgraduate Lectures of the Ohio State Medical Association held in 10 regions throughout the state during September and October. This fine attendance is considered satisfactory, especially since there were so many other postgraduate meetings held in the state during these months.

Registration in the various regional centers for the opening session follows: Region A—Napoleon, 77; Region B—Tiffin, 50; Region C—Mansfield, 108; Region D—Warren, 96; Region E—Cadiz, 45; Region F—Athens, 50; Region G—Columbus, 183; Region H—Wapakoneta, 64; Region I—Lebanon, 79; Region J, Portsmouth, 49.

In addition to their scientific value, these meetings are proving very beneficial in stimulating interest in current activities of the State Association, including medical preparedness, the proposed Enabling Act for Medical Service Plans, and the coming election. Representatives of the committees in charge of these activities have given brief talks at the dinner sessions in each of the regions. Dr. William M. Skipp, Youngstown, President of the State Association, also talked on organization matters at the opening meetings at Napoleon, Tiffin, Mansfield, Cadiz, and Portsmouth. As *The Journal* went to press, he was scheduled to speak at Lebanon, October 23; Athens, October 24; and Warren, October 30.

Photographs of some of the speakers who will appear on the programs for the closing sessions in the various regions accompany this article. Pictures of speakers for the first and second sessions appeared in the September and October issues of *The Journal*.

Following is a list of future lectures in each region with place of meeting, dates, speaker and their subjects:

REGION A—NAPOLEON

Parish House Auditorium, St. Paul's Lutheran Church

November 14—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Henry M. Goodyear, Cincinnati; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Ralph G. Carothers, Cincinnati.

REGION B—TIFFIN

Tiffin Theater, Dinner at Hotel Shawhan

November 27—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. C. W.



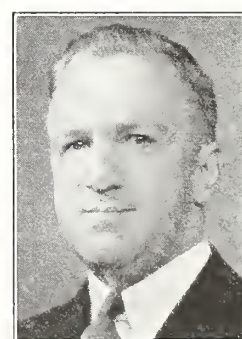
Henry M. Goodyear, M.D.



Albert L. Bershon, M.D.



Chas. T. Way, M.D.



Charles A. Doan, M.D.



James O. Beavis, M.D.

Engler, Cleveland; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Albert L. Bershon, Toledo.

REGION C—MANSFIELD
Mansfield-Leland Hotel

November 14—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. C. E. Kinney, Cleveland; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. Chas. T. Way, Cleveland.

REGION D—WARREN
Warner Hotel

November 27—"The Anemic Patient", and "Deficiencies and Anemia", Dr. Charles A. Doan, Columbus; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Judson D. Wilson, Columbus.

REGION E—CADIZ
General Custar Hotel

November 28—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Fred W. Dixon, Cleveland; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Edson J. Brown, Cleveland.

REGION F—ATHENS
Berry Hotel

November 28—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. James O. Beavis, Dayton; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Joseph A. Freiberg, Cincinnati.

REGION G—COLUMBUS
Deshler-Wallick Hotel

November 6—"Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. D. M. Glover, Cleveland; "Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. W. H. Evans, Youngstown.

December 4—"Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. J. M. Ruegsegger, Cincinnati; "The Anemic Patient", and "Deficiencies and Anemia", Dr. M. A. Blankenhorn, Cincinnati.

REGION H—WAPAKONETA
Elks' Home

November 28—"Complications of the Common Cold", and "Childhood Ear Infections: Proper



Joseph A. Freiberg, M.D.



Russel G. Means, M.D.



Edson J. Brown, M.D.



J. M. Ruegsegger, M.D.



M. A. Blankenhorn, M.D.



Louis R. Effler, M.D.



B. J. Hein, M.D.



Edward King, M.D.



Fred W. Dixon, M.D.



Julien E. Benjamin, M.D.

Treatment to Prevent Deafness", Dr. Louis R. Effler, Toledo; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. B. J. Hein, Toledo.

REGION I—LEBANON

Afternoon Session at Town Hall; Dinner and Evening Session at Golden Lamb Hotel

November 27—"Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. Julien E. Benjamin, Cincinnati; "Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Russel G. Means, Columbus.

REGION J—PORTSMOUTH

American Legion Hall

November 7—"The Anemic Patient", and "Deficiencies and Anemia", Dr. A. B. Brower, Dayton; "Practical Uses of Sulfanilamide and Its Derivatives", and "Modern Treatment of Pneumonia", Dr. C. C. Sherburne, Columbus.

December 5—"Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness", Dr. Edward King, Cincinnati; "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries", Dr. Judson D. Wilson, Columbus.

Next Board Exams, December 10-12

Midwinter examinations of the State Medical Board will be held at Columbus, Tuesday, Wednesday and Thursday, December 10, 11 and 12, the Board decided at a meeting held in Columbus, October 1. Written examinations will be given at the Deshler-Wallick Hotel; oral and practical at University Hospital. Business transacted at the October 1 meeting included the revocation of the license to practice medicine and surgery of Dr. Benjamin J. Lockley, Cincinnati, because of his conviction of violation of the Harrison Narcotic Law.

Make Grant for Polio Research

A grant of \$2,760 from the National Foundation for Infantile Paralysis has been announced by President Winfred G. Leutner of Western Reserve University, for research by Dr. John A. Toomey, professor of clinical pediatrics and contagious diseases of the School of Medicine. It is to be used to find a method or means to produce infantile paralysis in the smaller animals. Dr. Toomey points out that the war having stopped the importation of monkeys, it is imperative that the study be carried on by means of other animals, notably rats. He has already had grants from the National Foundation amounting to \$48,000 for his experimentation in infantile paralysis, which he carries on at City Hospital.

Fails to Locate Company

A member has notified the State Headquarters Office that he recently placed an order for miscellaneous equipment, including needles and a syringe, with a salesman who claimed to represent "Howey & Co.," 141 W. High St., Pittsburgh, Pa. The physician did not pay in advance, and after waiting two weeks for receipt of the goods, addressed a letter of inquiry to the company of the above address. The letter was returned marked "Not in Directory". The salesman is described as "a man about 60, short and slender".

Open Offices

Among the physicians who have recently opened new offices in Ohio are the following: Dr. Z. J. R. Hollenbeck, Columbus; Dr. R. S. Toomey, Wiloughby; Dr. Raymond H. Schroeder, Quincy; Dr. Harold Root, Bellevue; Dr. Gerald Wilson, Columbus; Dr. Guilford B. Hoister, Columbus; Dr. H. Eugene Crimm, Sidney; Dr. Edward W. McCall, Columbus; Dr. Lloyd Drossel, Woodville; Dr. Albert D. Weyman and Dr. Else Krug Weyman, Cincinnati; Dr. William Tandy, Columbus.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Ask almost any member of the medical profession of Ohio if he is interested in problems confronting the State Industrial Commission in

Industrial Commission Handicapped Because of Restricted Budget

its administration of the Workmen's Compensation Act and you will get this answer: "Of course." Too frequently, however, the interest of the individual physician is focused on only the medical problems of the Commission. This is but one aspect of the situation confronting that body. In general it has a whale of a big administrative problem, with many headaches. It needs the help of all persons and organizations interested in the workmen's compensation system in Ohio in its efforts to provide proper administration of the entire system.

This agency has been investigated repeatedly. Voluminous reports about its good points and its shortcomings have been written. Practically all of the investigating bodies have agreed on one point: Many of the Commission's difficulties could be eliminated if it had adequate funds for administrative purposes. Under the present law, administrative costs are met from money appropriated biennially by the State Legislature. Invariably the appropriation is less than the Commission needs to employ enough personnel to administer the law efficiently and carry on certain definite activities for the good of all affected by the workmen's compensation system.

The two groups most vitally concerned are employees and employers. Official representatives of both groups have done much throughout the years to bring about improvements in the workmen's compensation system in Ohio. Up to now, however, they have not exerted as much pressure as they could have to get adequate administrative funds for the Commission. If they will really get excited about this serious problem, they, aided by other interested groups such as the medical profession, will be able to convince the Legislature that the Commission, one of the biggest departments of the entire state government, cannot be operated efficiently on a starvation appropriation.

Two recent developments indicate that an awakening is in the offing. The Republican Party at its state convention adopted a plank pledging more adequate funds for the Commission. There was considerable discussion of the problem at the 1940 convention of the Ohio State Federation of Labor.

Here is what M. J. Lyden, Youngstown, president of the federation, had to say about the Commission in his report to the convention:

"The effective administration of the Ohio Workmen's Compensation Law is one of the most important problems facing the workers of Ohio. The awards made by the Industrial Commission are now as liberal as have been made in the history of the act. There is, however, too much delay in the adjudication and payment of claims. A great percentage of this delay would be overcome if injured workers would promptly file their claims.

"Inadequate appropriations is the chief cause of delay. The State of New York, with the same volume of claims, has three times as much money for administration as the State of Ohio. The Industrial Commission should vigorously insist upon adequate appropriations at the next session of the Legislature.

"There is need for a comprehensive educational campaign among Labor and employers on the subject of workmen's compensation. . . .

"Every member should insist that his State Senator and Representatives vote for adequate appropriations for the administration of the law at the next session of the General Assembly."

On the same subject, Thomas J. Donnelly, Columbus, veteran secretary-treasurer of the Federation, said:

"It appears to your Secretary-Treasurer that it is about time for this Federation to do something about workmen's compensation. Numerous investigations of the administration of the law have taken place over the years. The candidates for Governor and members of the General Assembly of Ohio have declared in answer to questionnaires submitted to them that they were in favor of the Ohio plan of workmen's compensation, that they were in favor of a liberalization of the law and adequate appropriations by the Legislature for the administration of the law. The political parties, in convention, have pledged the same things to Labor. . . .

"Again, in respect to adequate appropriations for the proper administration of the law, the Governors and members of the General Assembly and political leaders conveniently forgot their declarations to Labor on the subject and have not even granted the sums asked for by the Industrial Commission of Ohio. This has resulted in insufficient personnel to properly administer the law, inadequate salaries for many of the important employees of the Industrial Commission, with a consequent loss in the amount of premiums collected from employers and unbelievable delays in the investigation and payment of workmen's compensation claims to injured workers and the dependents of killed workers. It is unfair, in my opinion, to blame defects in the administration altogether upon the members of the Industrial Commission of Ohio, when the elected representatives of the people of Ohio refuse to take an

DON'T BE AMONG THE MINORITY! SEND IN YOUR QUESTIONNAIRE AT ONCE

Latest report issued by the Committee on Medical Preparedness of the American Medical Association on the return of A.M.A. Medical Preparedness Questionnaires shows that the percentage of questionnaires answered by Ohio physicians is 58.8.

This is certainly not a record of which Ohio physicians can be proud.

It is difficult to understand why so many physicians have ignored the preparedness questionnaire. It does not commit the physician to anything. What it does do, however, is give the A.M.A. pertinent information about a physician and will make it possible to place that physician in the proper type of service, either military or civilian, in event of a national emergency. It is a practical attempt to avoid the confusion and misplacement of medical personnel which accompanied mobilization in 1917-18. By sending in his questionnaire, a physician will be doing himself a real favor as it will give him some assurance that he will be properly assigned if there is a military crisis.

If you have a questionnaire, fill it out and mail it to the American Medical Association, Chicago, at once. If you do not have one, see the secretary of your county medical society or write the State Association Headquarters Office, Columbus, for one.

interest in the giving of adequate appropriations for the administration of this great law. . . .

"It appears to your Secretary-Treasurer that the State of Ohio owes it to itself, as well as to employers and employees, to either make appropriations for the administration of the workmen's compensation which will approximate the figures recommended by the workmen's compensation investigating committee in 1934 or change the law and provide for the administrative costs to be paid from the state insurance fund, and such costs to be based upon the recommendation of the workmen's compensation investigating committee, taking into account that there has been a large increase in the number of employers and employees covered since 1934. . . ."

There seems to be general agreement that many of the Commission's problems could be solved by providing the Commission with a sufficient amount of money annually for administrative activities. At the same time, there may be disagreement on the part of interested groups as to just how adequate funds shall be provided. Whether this method or that method is used is not the important question. The big question is that the Commission is in need of more money for administration of the law and must have it. The medical profession has a vital interest in the Commission's work. For that reason it should—and, in our opinion, it will—do its part to see that this situation is corrected. The first approach should be through the members of the Legislature. Discuss this with your legislator before the 1941 session of the General Assembly.

Not long ago we overheard a rather heated argument between two physicians as to whether a certain procedure should be classified as "major" or "minor"

Major or Minor, It's Still Surgery Which Requires Skill, Caution

surgery. Intrigued with the arguments presented, and realizing also that this is a question which frequently is badly misunderstood by many laymen, we engaged in a bit of research.

In the archives, we ran across an editorial, entitled "Major and Minor Surgery", published in the August 13, 1938, issue of *The Journal of the American Medical Association*. In our opinion, it contained a good bit of sound reasoning and a lot of common sense. Therefore, we are taking the liberty of reproducing it, thus adding our bit to efforts to settle a question which is not nearly so minor as it may appear to be at first glance:

"In two recent communications, Hubert A. Royster makes a plea that the term 'minor surgery' be eliminated from our nomenclature because of possible implications. He advances the argument that the labeling of certain procedures as minor may mislead an intern or a general practitioner into believing that any condition requiring surgical intervention can be regarded as minor. Only one of 104 surgeons whom he consulted believed the division of surgery into major or minor is justified. The principal objection to the term, it appears, is that it is vague and ill defined. There exist no definite criteria by which

to designate any one procedure as minor or major. What appears to be a simple procedure may develop into the most complicated one. What is a minor operation in the hands of a skilful surgeon may prove a major one in the hands of the unskilled surgeon. Such criteria as time required to perform an operation, the mortality, the skill required, the question of anesthesia, the question of whether it can be performed in the office or requires hospitalization are all variables. The suggested substitutes for the term minor surgery, such as office surgery, ambulant surgery or dispensary surgery, are hardly an improvement. Royster argues that all surgery is based on the same fundamental principles and is therefore not divisible. In no other field of medicine does a similar division into major or minor procedures exist. Actually the term minor surgery has largely disappeared from the curriculums of our leading medical schools."

The doctor who appears on the witness stand not only speaks for himself but represents the entire practice of medicine. His manner, the opinions which he voices, the scientific knowledge, and the interest in the case as a whole stands out conspicuously to the honor or to the discredit of all medicine.—Cleveland Academy of Medicine Bulletin.

In as much as physicians are being called upon more and more to do radio broadcasting, the following excerpt from a bulletin issued by the Columbia Broadcasting Company is especially timely and its recommendations should be heeded by all physicians when called upon to speak over the air:

Some Valuable Tips for Physicians Doing Radio Broadcasting

"Effective radio speakers realize that they hold or lose the listener in the first minute or two. Therefore they make a point of doing these things:

"They select a subject interesting, important and vital to people.

"They find out what interests people by asking those who really represent different sections of the radio audience—such as the business man, the manufacturer, the scientist, the teacher, the young student, the man in the street, the laborer, the motorman, the clerk, and so on.

"They write as they talk.

"They make their talk alive with things of homely interest.

"They make their remarks short, terse, and direct to the point.

"They make their speech concrete and specific about a few points. They know that too many ideas confuse the listener.

"They write their speech so as not to crowd the time allotted. They allow themselves ample time for emphasis; for using a free and easy manner without galloping to a finish.

"They use simple, understandable words which every listener knows. They realize it is unnecessary to impress on the listener that they know all the big words in the dictionary.

"They avoid long, pedantic speeches.

"They avoid statistics as they would the plague. If statistics are unavoidable, similes by word pictures are always best.

"They avoid humor, unless they are qualified to use it. They know that it takes a natural humorist to tell a funny story.

"They never make the direct statement that they are going to prove so and so. They know that this always makes a listener antagonistic.

"They approach the microphone as if they were discussing matters with a group of acquaintances.

"They speak sincerely and convincingly.

"They pace their talk as they would in face-to-face conversation. They always avail themselves of time for studio rehearsals at the broadcasting station.

"They follow the meaning of their remarks, rather than the actual commas and periods.

"They time their speech at rehearsal, and they carefully watch their time.

"They leave their audience wanting more.

"They broadcast as they talk, not as they read.

"They do not clear their throats or cough when near a microphone. They have their manuscripts on loose sheets, never clipped together. They know that in this way they can drop each sheet to the floor as it is finished.

"They never say anything for a few seconds before starting or after closing. They are conscious that the microphone might be open and pick up such sounds."

The dictators of organized medicine are the practitioners of medicine, every one of whom has a voice which will be heard when it expresses a constructive thought, even though it expresses adverse criticism.—Nathan B. Van Etten, M.D., President of the American Medical Association.

Those who have been reading recent issues of *The Journal* have no doubt been impressed with the enormous amount of work which has been,

Even the Very Best of Committees Needs Help from the Ranks

and is being, done by the committees of the State Association. One committee which has been spending hours, days, weeks on a question of vital concern to the medical profession of Ohio as a whole is the Committee on Medical Service Plans. That committee has not only prepared a proposed enabling act for submission to the General Assembly in 1941 but it has been carrying on a vigorous educational and promotional campaign among members of the medical profession and laity. Its work has just begun and it is confronted with many more days of hard toil.

Out of gratitude, the least the rank and file of the profession can do is to study the material which the committee has prepared and which has been distributed to members of the State Association. More information will be circulated from time to time, by direct mail, bulletins and through the columns of *The Journal*. Speakers will appear at county society and district meetings. Members should plan to attend these meetings to hear these discussions of what the enabling act will do and

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Vaginitis
- ★ Vaginal Moniliasis
- ★ Bartholinitis and Skeneitis
(due to *Trichomonas Vaginalis*)

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NOW'S THE TIME TO BECOME FELLOW OF THE A.M.A.!

Since the 1941 session of the American Medical Association will be held in Cleveland next June 2-6, every eligible Ohio physician will want to attend as many sessions as possible of that great medical gathering. To be "eligible" to attend, a physician must be a Fellow of the A.M.A. Right now is the time for each physician to take care of this important matter by making formal application for Fellowship by writing directly to the American Medical Association, Chicago. Every member of the American Medical Association (every member of the Ohio State Medical Association) is eligible to apply for Fellowship. Cost of Fellowship is \$8.00 per year, the same as the subscription to *The Journal of the A.M.A.* and when a physician becomes a Fellow he receives *The Journal of the A.M.A.* free.

OHIO DOCTORS SHOULD APPLY NOW FOR FELLOWSHIP IN THE A.M.A.

why it should be enacted. Every member should feel obligated to take an active interest in this important project by the State Association, which, in the final analysis, is for the good of the profession as a whole, as stated above.

We wish that all members could catch the spirit shown by the editor of *The Toledo Academy of Medicine Bulletin*, Dr. W. W. Green. Writing in the October issue of that publication on the proposed enabling act, Dr. Green said:

"If an Enabling Act for Medical Service Plans is not enacted at the next session of the State Legislature, it will not be due to a lack of effort on the part of our State Association. It has been particularly gratifying to those of us interested in the proposed Act to see the support it has received in the past few months.

"Probably no Medical Service Plan in the country was formulated through the cooperation and effort of such a large number of practicing physicians. For a year after its completion little progress was made in providing the legal machinery necessary for its establishment. It was opposed by many rural physicians who wrongly supposed that a plan suitable for industrial centers was being forced upon them.

"The effort to provide an Enabling Act has taken on new impetus in the past few months. Our State President, Dr. Skipp, has actively supported the program. The Committee on Medical Service Plan has initiated a program of education, making it clear that the physicians of each community are free to choose any plan or no plan at all. Dr. Hein, one of our members, has been appointed chairman of the influential Committee on Public Relations and Economics. The State Journal, through its editorials and other articles, has brought to the attention of the profession the need for an Enabling Act. If we in Toledo have been too impatient or too critical of the State Association for its previous inactivity, we are sorry. For its splendid support in the past few months, we are deeply grateful."

Dayton—Speakers at the annual meeting of the Dayton Social Hygiene Society included Dr. J. Grant Marthens and Dr. H. H. Williams, local health commissioner.

Physicians Marry

Recent marriages of Ohio physicians include the following: Miss Elizabeth Titus, Fond du Lac, Wisconsin, and Dr. Lynn E. Baker, Cincinnati; Miss Jean Elizabeth Richards, Struthers, and Dr. Barclay M. Brandmiller, Youngstown; Miss Ruth L. Friedman and Dr. Bernard P. Bresin, Cleveland; Miss Helene McKelvey, Kansas City, Mo., and Dr. Herbert J. Brinker, Cincinnati; Miss Barbara Brownfield, Columbus, and Dr. Charles E. Cassaday, Youngstown; Miss Garnet Lucille Light, Bucyrus, and Dr. Bernard K. Craw, Toledo; Miss Helen Fox and Dr. Harry E. Crimm, Cleveland; Miss Perpetua Auterson and Dr. Anthony Dindia, Cleveland; Miss Mary Gazelle Craig and Dr. G. L. Doster, Paulding; Miss Roberta Aurilla Wilhelm, Point Pleasant, W. Va., and Mr. Charles E. Holzer, Jr., Gallipolis; Miss Charlotte Vangrov, Dayton, and Dr. Alan S. Horwitz, Charleston, West Va.; Miss Edythe Kasfir and Dr. Aaron Kantor, Cincinnati; Miss Ruth Lang and Dr. Carl W. Kump, Cincinnati; Miss Barbara Schutz, San Antonio, Texas, and Dr. Louis W. Ladd, Jr., Cleveland; Miss Maxine Murphy, Columbus, and Dr. Henry T. Lapp, Utica; Miss Alice Jean Barclay, Sebring, and Dr. Keith C. Noble, Cleveland; Miss Margaret Marie Harrigan, Columbus, and Dr. Pliny Austin Price, Toledo; Miss Dorothy Paisley Snure and Dr. Albert E. Rath, Cleveland; Miss Sarah Jane Bradshaw, Bexley, and Dr. Joseph N. Schaeffer, Dayton; Miss Anne Kohn and Dr. Edward D. Schwartz, Cleveland; Miss Jeannette Wilk and Dr. John Viktoryn, Cleveland; Miss Marie Cochran, Toledo, and Dr. D. Paul Ward, Pemberville; Dr. Mary Elizabeth Wiltberger, Columbus, and Mr. Norman Summerville, Toledo; Miss Mary Kilgore, Columbus, and Dr. Robert M. Woolford, Cincinnati.

Cleveland—Dr. Roy W. Scott addressed the Cleveland Dental Society on the subject "Arterial Decay; Major Barrier to Longevity".

CANNED FOODS AS SOURCES OF THE ESSENTIAL NUTRIENTS

● Early in this century, the existence of "accessory food factors"—the vitamins—was demonstrated by animal experiments (1, 2). Since that time, building upon information established by earlier investigators regarding the calorie, protein, and mineral needs of man, contemporary workers have developed a practical and fairly complete working knowledge of nutrition. At the present time, the fundamental human dietary requirements are considered in terms of some thirty substances of known chemical composition plus a number of factors whose chemical natures still await determination (3). Likewise, the dietary values of foods also may be discussed in terms of these same essential nutrients.

Viewed from a physiological basis, nutritional failures appear to be conditioned either by consumption of a diet deficient with respect to certain of the essential food factors or to altered processes in metabolism which prevent the efficient absorption and utilization of foods (1). Failures of the latter type can be corrected only by elimination of the defects in metabolism, or by administration of nutrients by routes which permit utilization. However, the vast majority of nutritional failures are associated with the consumption of diets deficient with respect to essential food factors. In the following quotation, the facts regarding malnutrition resulting from faulty diet are concisely stated (1):

"Three facts concerning nutritive failure are becoming increasingly obvious: first, that it does not come solely from lack of vitamins

but from deficiency of proteins and minerals as well; in certain of the lower animals, it comes even from lack of fats; second, that in America it is seldom complete; and third, that it is not, as a rule, the expression of a single nutritive fault. More often it is partial in extent and multiple in nature, with a clinical picture that is correspondingly lacking in detail and hazy in outline."

Although nutritional diseases are manifestations of the prolonged consumption of diets deficient with respect to amino acids, minerals, and vitamins, students of the problem agree (2, 4, 5, 6) that elimination of malnutrition is primarily a problem of increasing the variety of foods regularly eaten. Special emphasis should be placed upon the judicious consumption of familiar foods such as meats, (including glandular organs, poultry, sea food, and fish); eggs; milk in its many forms; milk products; fruits and vegetables; legumes; and the whole cereals and their various products. Thus, in its practical application (7), nutrition may be viewed as "an economic, agricultural, industrial and commercial problem, as well as a problem in physiology."

The nutritive values of canned foods have indeed been well established by means of numerous studies (8). By transforming foods, from the perishable condition in which they are harvested, to canned foods which may be stored for consumption in all seasons, the canning industry has rendered great assistance in carrying out the program designed to eliminate malnutrition in America.

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REFERENCES

1. 1939. J. Am. Med. Assoc. 112, 2110.
2. 1938. J. Am. Med. Assoc. 111, 1073.
3. 1940. J. Med. Assoc. Alabama 9, 365.
4. 1940. J. Am. Med. Assoc. 114, 548.
5. 1939. U. S. Dept. Agri. Circular No. 507.
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7. 1935. Quart. Bull. Health Organ. League of Nations 4, 326.
8. 1939. Canned Food Reference Manual, American Can Company, New York.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-fifth in a series which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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Board of Directors of State Woman's Auxiliary Convenes In Columbus; Progress in Forming Units Reported

WOMAN'S auxiliaries to county medical societies have been organized, or are in the process of organization, in at least 40 counties, it was reported at the first meeting of the Board of Directors of the Woman's Auxiliary to the Ohio State Medical Association held at the Deshler-Wallick Hotel, Columbus, October 9. All officers of the Auxiliary and members of the Board attended the meeting. They are: Mrs. J. E. Purdy, Canton, president; Mrs. W. W. H. Curtiss, Dennison, president-elect; Mrs. H. F. Tangeman, Cincinnati, vice-president; Mrs. J. L. Stevens, Mansfield, secretary-treasurer; members of the board—Mrs. Henry B. Freiberg, Cincinnati, first district; Mrs. W. W. Trostel, Piqua, second district; Mrs. H. J. Weisenbarger, Lima, third district; Mrs. Arthur A. Brindley, Toledo, fourth district; Mrs. Clyde L. Cummer, Cleveland, fifth district; Mrs. R. B. Poling, Youngstown, sixth district; Mrs. C. W. Kirkland, Bellaire, seventh district; Mrs. D. R. Sperry, Newark, eighth district; Mrs. O. R. Micklethwait, Portsmouth (appointed to succeed Mrs. Ross M. Gault, who resigned), ninth district; Mrs. H. M. Clodfelter, Columbus, tenth district; and Mrs. Lincoln Fisher, Mansfield, eleventh district.

The meeting was also attended by Mrs. V. E. Holcombe, Charleston, W. Va., president of the Woman's Auxiliary to the American Medical Association, who expressed her pleasure at the excellent progress made by the state auxiliary since its organization last May. During the luncheon hour, Mrs. Holcombe gave a very interesting and instructive talk on the activities of auxiliaries throughout the country.

Among the business transacted was the establishment of annual dues to the State Auxiliary at 50 cents per capita.

In her report as chairman of the Organization Committee, Mrs. Curtiss reviewed plans for organization of auxiliaries throughout the state, and explained the provisions of the state constitution governing the establishment of local auxiliaries. She urged all members to read the informative articles appearing in the bulletin published by the Woman's Auxiliary to the A.M.A.

The desirability of drafting a model constitution for local auxiliaries was discussed. It was decided that the local units could draw up their own constitutions, using the state constitution as a guide.

Charles S. Nelson, Executive Secretary of the Ohio State Medical Association gave a brief talk on some of the ways that the auxiliaries could be helpful to organized medicine and told the

board that the State Association desired to cooperate in every possible way.

The gavel used at the meeting is a gift from the Canton Chamber of Commerce. It is made of wood from the Canton home of the late President William McKinley.

In closing the meeting, Mrs. Purdy thanked the officers and directors for the fine work they had done, and asked for their continued cooperation. The Board will convene again in June, 1941, at Cleveland, during the 95th Annual Meeting of the Ohio State Medical Association.

Conference on Industrial Health

The American Association of Industrial Physicians and Surgeons will sponsor the American Conference on Industrial Health at the Towers Club, Chicago, Thursday, November 14. This first meeting has for its purpose the correlation of viewpoints of all persons interested in promoting industrial health. These include employers, physicians, industrial hygienists, labor, insurance companies, public relations men, safety experts and the legal profession. Dr. Clarence O. Sappington and Dr. Edward C. Holmblad, Chicago, are co-chairmen of the program committee. Speakers include Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*; B. C. Heacock, president of the Caterpillar Tractor Company, Peoria, Ill.; Dr. Volney S. Cheney, medical director of Armour and Company, Chicago; and J. M. Conway, representing the National Association of Manufacturers, New York. The conference, which is scheduled to begin at 9:30 A.M., will conclude with a dinner session at which Dr. Fishbein and Mr. Conway will speak.

Beg Your Pardon!

The news note which appeared in the September issue of *The Journal* concerning Dr. Earl H. Van Horn and Dr. C. I. Stafford was incorrect. It should have read as follows: "Dr. Earl H. Van Horn, associate medical director at Miami University, who came to Oxford from Cincinnati about two years ago to succeed Dr. C. I. Stafford, has resigned to become medical superintendent of the Ohio Masonic Home at Springfield. Dr. Stafford has been in private practice at Oxford for the past two years."

Painesville—The need for a proposed addition to the Lake County Memorial Hospital was explained by Dr. C. B. Elliott, county health commissioner, at a meeting of the local P.T.A.

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In Memoriam

Francis Joseph Abt, M.D., Cincinnati; Eclectic Medical College, Cincinnati, 1914; aged 53; died September 18. Dr. Abt practiced in Cincinnati for 22 years. He was a member of the Catholic Order of Foresters. Surviving are his widow, three daughters, two brothers and two sisters.

Robinson Leroy Bidwell, M.D., Toledo; Ohio State University College of Medicine, 1908; aged 56; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died September 26. A native of West Jefferson, Madison County, Dr. Bidwell had practiced in Toledo for 32 years. In 1920, 1922 and 1923, he was a delegate from the Toledo Academy of Medicine to the Ohio State Medical Association. Dr. Bidwell was a Mason. Surviving are his widow, and two brothers, one of whom is Dr. P. J. Bidwell, Toledo.

Robert Andrew Buchanan, M.D., Lima; Cleveland-Pulte Medical College, 1901; aged 63; member of the Ohio State Medical Association and the American Medical Association; died September 19. Dr. Buchanan practiced in Lima for 38 years. He was a former legislative committeeman and medicine defense committeeman of the Allen County Academy of Medicine. Active in community affairs, Dr. Buchanan was a member of the Lima Board of Education and the Presbyterian Church. He was a member of the staff of Memorial and St. Rita's Hospitals. After serving in Co. C, Second Ohio Infantry on the Mexican Border in 1916-17, he was honorably discharged with the rank of captain. A son and a daughter survive.

William E. Guntrum, M.D., Greenville; Medical College of Ohio, Cincinnati, 1893; aged 77; member of the Ohio State Medical Association and the American Medical Association; died September 21. Dr. Guntrum practiced in Greenville and Darke County for nearly 50 years. In addition to his professional duties, he was keenly interested in business and fraternal affairs. Dr. Guntrum was a director of the Citizens State Bank, Greenville, and a charter member of the Little Turtle Tribe of the Improved Order of Red Men. Five sisters survive.

John M. Howard, M.D., Amesville; Starling Medical College, Columbus, 1895; age 77; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 10. Dr. Howard practiced in Amesville, Athens County, for 42 years. He was previously located in Jacksonville for three years. His widow and three sisters survive.

Fred Browne Grosvenor, M.D., Columbus; University of Michigan Homeopathic Medical School, Ann Arbor, 1911; aged 56; former member of the

Ohio State Medical Association and the American Medical Association; died October 9, at Wood, Wis., where he had been hospitalized for more than a year. A native of Troy, Dr. Grosvenor taught pathology at the Ohio State University College of Homeopathic Medicine from 1914 to 1922. He then located in Cuyahoga Falls, and continued in practice there until his retirement in 1937. Dr. Grosvenor was a captain in the Medical Reserve Corps of the United States Army. His widow, two sons, two daughters and two sisters survive.

Charles Huston Minor, M.D., New York City; Ohio State University College of Homeopathic Medicine, 1920; aged 47; died September 25. Dr. Minor formerly practiced in Columbus.

Dickson Leonard Moore, M.D., Columbus; University of Wooster Medical Department, Cleveland, 1892; aged 77; member of the Ohio State Medical Association and the American Medical Association; died September 27. The first physician in Columbus to specialize in pediatrics, Dr. Moore practiced there for 46 years, retiring two years ago because of ill health. He was chief of staff at Children's Hospital for nearly 30 years, and was a member of the Grant Hospital staff for many years. Dr. Moore was a member of the Columbus Press Club, Beta Theta Pi fraternity and the First Congregational Church. He was a former president and life member of the Columbus Academy of Medicine.

Edwin Nichols, M.D., Scottsbluff, Nebraska; Starling Medical College, Columbus, 1894; aged 72; died September 20. Dr. Nichols practiced in Newark until 1908, when he moved to Nebraska. His widow survives.

Lucy Winchell Pine, M.D., Washington C.H.; Laura Memorial Woman's Medical College, Cincinnati, 1897; aged 75; member of the Ohio State Medical Association and the American Medical Association; died October 6. Dr. Pine practiced in Washington C.H. for 42 years. An active member of the Fayette County Medical Society, she was secretary from 1918 to 1922, president in 1927 and delegate to the Ohio State Medical Association in 1932. For many years she was a member of the local W.C.T.U., and had served the Grace Methodist Church both as a teacher and a member of the official board. Dr. Pine was a charter member of the Browning Club. Two sisters survive.

David F. Thompson, M.D., Toledo; Columbia University College of Physicians and Surgeons, New York, 1869; aged 93; died September 20. Dr. Thompson retired ten years ago, after several years' practice in Bowling Green and Toledo. He had previously practiced in New York and Georgia.

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An application for compensation filed by a nurse alleging that she had contracted pulmonary tuberculosis while employed in the tuberculosis department of a hospital was recently allowed by the State Industrial Commission on the ground that the claimant's disability was the result of a compensable occupational disease contracted in the course of her employment.

* * *

Dr. C. C. Higgins, Cleveland, was one of the guest speakers at the 99th Annual Meeting of The State Medical Society of Wisconsin, September 18-20, at Milwaukee. Dr. Higgins discussed "Management of Patients with Renal Lithiasis", at a general session and led a round-table conference on "Management of Urinary Tract Infections".

* * *

According to the U. S. Bureau of the Census, there were 300,580 suicides in the United States from 1920 through 1938.

* * *

Dr. Arthur C. Bachmeyer, former dean of the University of Cincinnati College of Medicine and now associate dean of the School of Medicine of the University of Chicago and superintendent of the University Hospital, has been elected president of the American College of Hospital Administrators.

* * *

Members of the Cincinnati Academy of Medicine "snowed under" a proposal to purchase a permanent home for the Academy. Of the 376 Academy members who participated in the post-card ballot, only 62 expressed themselves as being willing to pay a \$15 increase in annual dues necessary to finance the proposed deal.

* * *

H. A. Phillips, manager of Rocky Glen Sanatorium, McConnellsville for nearly 20 years, died October 5.

* * *

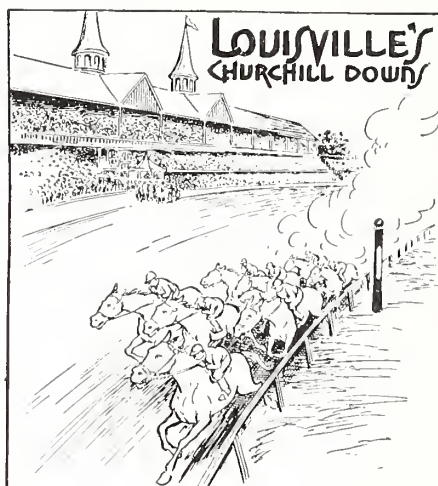
Dr. R. C. Wise, Mansfield, has been re-elected president of the Ohio Commission for the Blind.

* * *

New officers of the Ohio State Hospital Physicians' Association, are: Dr. H. P. Lee, Toledo State Hospital, president; Dr. I. S. Rian, Massillon State Hospital, vice-president; and Dr. G. H. Cook, Gallipolis State Hospital, secretary-treasurer.

* * *

Western Reserve University School of Medicine has received a legacy of \$1,000 from the estate of the late Dr. Edward Ames, Kalamazoo, Mich., to establish the Edward Ames Scholarship Fund for medical students. Dr. Ames attended W.R.U. in 1872 and 1873, receiving his M.D., from Yale University in 1874. He practiced medicine for



AS "the Derby" determines the winner among equestrian thoroughbreds, so each meeting of the Southern Medical Association becomes more established as a consistent winner among the thoroughbred medical meetings. See another winner when the Southern Medical Association meets in Louisville, Kentucky, November 12-15, 1940.

MEDICALLY, there may be expected the usual fine programs and entertainment that distinguish the annual meetings of the Southern Medical Association from the others. Ten general clinical sessions, nineteen sections, the three independent medical societies meeting conjointly, and outstanding scientific and technical exhibits are assurance that every phase of medicine and surgery will be available.

REGARDLESS of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Louisville a program to challenge that interest and make it worth-while for him to attend.

ALL white members of the Ohio State Medical Association are cordially invited to be the guests of the Southern Medical Association at the meeting in Louisville. Attending guests will be accorded every privilege, scientific and social, that members enjoy with the exception of voting in the general session. NO registration fee.

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65 years, up to six months of his death, March 22, 1940, at the age of 81.

* * *

Dr. Donald R. Printz, Ada, won the championship at the golf tournament of the Northwestern Ohio Medical Association, at the Shawnee Country Club. He had a low gross score of 75. Dr. L. C. Thomas, Lima, was runner-up with a 77.

* * *

Dr. William M. Skipp, Youngstown, President of the Ohio State Medical Association, gave an address of welcome, in behalf of the Association, at the annual banquet held during the twenty-fifth International Assembly of the Interstate Postgraduate Medical Association of North America, at Cleveland, October 14-18.

* * *

Physicians who participated in the National Cancer Institute held recently in Washington included Dr. Mont R. Reid, Dr. Max M. Zininger and Dr. Leon Schiff, members of the faculty of the University of Cincinnati College of Medicine.

* * *

The Ella Sachs Plotz Foundation for the Advancement of Scientific Investigation has made a grant of \$300 to Dr. John Paul Quigley, Department of Physiology, Western Reserve University, for a study of the process of gastric evacuation.

* * *

Unmarked for 80 years, the grave of Dr. John Sellman, Revolutionary War soldier and first president of the Cincinnati Medical Association, received a Government marker recently, through the efforts of the Mariemont chapter of the D.A.R. The pioneer's body is in Spring Grove Cemetery, Cincinnati. Dr. Sellman was with the First Maryland Regiment in the Revolutionary War. He also served as surgeon under General Anthony Wayne. He died in 1828.

* * *

Captain Otis Benson, Medical Corps, United States Army, has assumed directorship of the Wright Field areo-medical research laboratory, Dayton. He succeeds Captain Harry G. Armstrong who is taking a year's postgraduate course at the University of Toronto Faculty of Medicine.

* * *

On the recommendation of the Public Health Committee of the Columbus Junior Chamber of Commerce, its Board of Directors unanimously adopted a resolution commending the Columbus Academy of Medicine for the two series of radio programs being sponsored by the Academy.

* * *

Dr. Frederick C. Potter, pathologist at People's Hospital, Akron, for 17 years, has resigned to enter private practice. He was succeeded by Dr. Lewis E. Rector, formerly at Peter Bent Brigham Hospital, Boston, Mass.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

A meeting of the Adams County Medical Society was held at Winchester, Wednesday, October 16, beginning at 10:30 A.M. Dr. Sam Clark, Cherry Fork, reported for the legislative committee. Dr. A. R. Carrigan, Manchester, spoke on "Septicemia", with Dr. L. Faul, Sr., Russellville, as discussant. At the afternoon session, Dr. Wm. T. Foley, Cincinnati, gave an address on "Vaginal Hysterectomy", with discussion by Dr. S. R. Gendelman, Manchester. "Food Poisoning", was the subject presented by Dr. R. B. Ellison, Peebles, with discussion by Dr. R. L. Lawwill, Seaman.—O. T. Sproull, M.D., secretary.

BUTLER

Dr. H. W. Kendell and Dr. Donald L. Rose, Dayton, discussed "Fever Therapy", at a meeting of the Butler County Medical Society, Thursday evening, September 26, at the Elks' Temple, Hamilton. There were 28 members and seven guests present.—Vera Coombs Iber, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during October:

October 1—Under the auspices of the Cincinnati Department of Health, Dr. Carl A. Wilzbach, health commissioner of Cincinnati, presiding. "Some Things Learned in the Recent Enteritis Studies", Dr. Benjamin Hoyer; "A Shift in the Age Incidence of Diphtheria Morbidity", Dr. Abraham Gelperin; "Some Problems in the Control of Syphilis", Dr. Roger Heering; "Cooperation in the Control of Tuberculosis", Dr. David W. Heusinkveld.

October 8—Hospital Night. Program arranged

by members of the staff of Longview Hospital. "Treatment of Involution Psychoses, with Illustrative Cases", Dr. Esther Bogen Tietz and Dr. F. Marion Stephens; "Etiology and Treatment of Factitial Skin Injuries", Dr. Samuel Goldblatt; "Anterior Dislocation of the Fourth Cervical Vertebra Caused by Catatonic Posture of the Patient's Neck", (Case Report), Dr. Nicholas J. Giannestras; "Multiple Calcified Cerebral Masses With Psychosis and Convulsions", (Case Report), Dr. Frank H. Mayfield; "Electro-Encephalographic Changes in Epilepsy" (Lantern Slide Demonstration), Dr. Douglas Goldman.

October 15—"The Interrelation of Neurology, Psychiatry and Psychoanalysis", Dr. Roy R. Grinker, chairman, department of neuropsychiatry, Michael Reese Hospital, Chicago, Ill.

October 22—"Chemotherapy in Non-Specific Urinary Tract Infections", Dr. Edwin P. Alyea, associate professor of surgery, Duke University School of Medicine, Durham, N. C.

October 29—"Cutaneous Irritation Caused by Some Common Outdoor Arthropods and Plants Occurring in Cincinnati and Vicinity", Dr. Karl G. Zwick.—Bulletin.

The first step in organizing a Woman's Auxiliary to the Academy of Medicine of Cincinnati was taken Monday, October 7, when wives of members met in the Academy Auditorium. Mrs. W. O. Ramey was named chairman of a nominating committee. She will be assisted by Mrs. Charles L. McDevitt, Mrs. Abbot Y. Wilcox, Mrs. E. A. Kindel and Mrs. James M. Pierce.—News clipping.

WARREN

Dr. James L. Sagebiel, Dayton, spoke on "Treatment of Head Injuries", at a meeting of the Warren County Medical Society, Tuesday afternoon, October 1, at the Town Hall, Lebanon.—News clipping.

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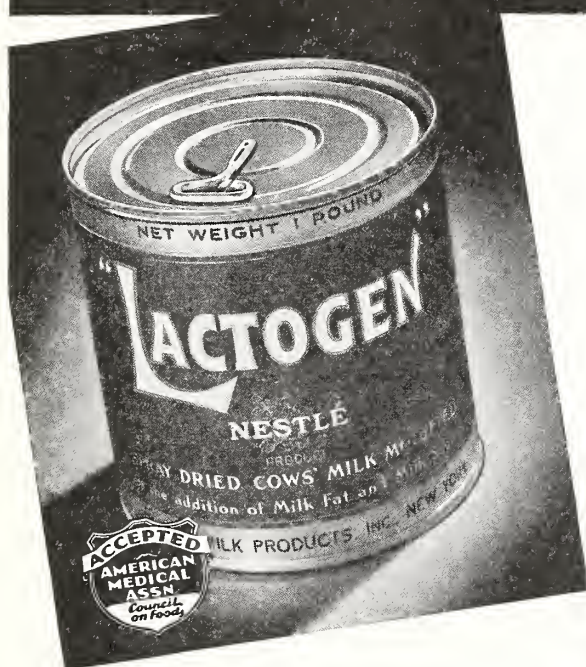
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Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

Dr. S. C. Yinger, Springfield, gave an interesting paper on "Acute Respiratory Emergencies", at a meeting of the Greene County Medical Society, Thursday, October 3, at Xenia. Dr. Jonathan Forman, Columbus, will speak on "Asthma", at a meeting of the society, Thursday, November 7.—Donald F. Kyle, M.D., secretary.

MIAMI

Dr. T. E. Newell, Dayton, presented a travel talk entitled "Travel Experiences in Central and South America", at a dinner meeting of the Miami County Medical Society, Thursday, October 3, at the Piqua Country Club. Wives of members were guests at the meeting. Plans were discussed for the organization of a Woman's Auxiliary.—News clipping.

MONTGOMERY

"Diseases of the Gall Bladder", was the subject discussed by Dr. Warren H. Cole, professor of surgery and head of the department of surgery, University of Illinois College of Medicine, at a meeting of the Montgomery County Medical Society, Friday evening, October 4, at Dayton.

Dr. Louis G. Herrmann, assistant professor of surgery, University of Cincinnati College of Medicine, spoke on "Modern Management of Circulatory Diseases of the Extremity", at a meeting of the society, Friday evening, October 18.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

HARDIN

Dr. Charles L. Barrett, Bellefontaine, member of the Committee on Medical Service Plans, Ohio State Medical Association, spoke on "Why Ohio Needs an Enabling Act", at a meeting of the Hardin County Medical Society, Thursday night, September 19, at Kenton.—News clipping.

LOGAN

"Mental Difficulties as Concern the General Practitioner", was the subject discussed by Dr. Carl Sawyer, Marion, at a meeting of the Logan County Medical Society, Friday, October 4, at Hotel Logan, Bellefontaine.—News clipping.

MARION

A motion picture film dealing with the diagnosis and treatment of pneumonia was shown at a meeting of the Marion Academy of Medi-

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¹ Sevringhaus, E. L., and Evans, J. S.: *Am. J. M. Sc.* 178:638, Nov. 1929.

² Novak, Emil: *Surg. Gynec. & Obst.* 70:124, Jan. 1940.

³ Schneider, P. F.: *Am. J. Obst. & Gyn.* 37:861, May 1939.

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cine, Tuesday night, October 1, at the Marion City Hospital.—News clipping.

SENECA

Dr. W. W. Green, Toledo, discussed "The Diagnosis of Ano-Rectal Pathology", at a meeting of the Seneca County Medical Society, Thursday evening, October 10 at the Shawhan Hotel, Tiffin.—M. H. Aiken, M.D., secretary.

During the meeting members of the society's recently organized Woman's Auxiliary held a short business session at which Mrs. R. E. Hersberger, Mrs. A. W. Harrold and Mrs. E. N. Williard were appointed as a committee to arrange for the entertainment of wives of physicians at the second session of the Ohio State Medical Association Regional Postgraduate Lectures at Tiffin, Wednesday, October 23. Mrs. V. L. Magers, Mrs. J. A. Gosling and Mrs. G. W. Williard were named as a nominating committee to report at the next meeting. Officers of the Auxiliary are Mrs. R. R. Hendershott, Tiffin, chairman; and Mrs. Paul J. Leahy, Tiffin, secretary. After the business session, the ladies played cards, and later lunch was served both groups.—News clipping.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during October:

October 4—General Meeting. "Medical Preparedness", Rear Admiral Harold W. Smith, Medical Corps, U. S. Navy, commanding officer, Navy Medical Center, Washington, D. C.

October 11—Section of Pathology, Experimental Medicine and Bacteriology. "Types of Chronic Kidney Disease and Their Treatment", Dr. Joseph M. Hayman, Jr., professor of clinical medicine and therapeutics, Western Reserve University School of Medicine, Cleveland.

October 18—Medical Section. "Functional Medicine from the Dermatologist's Viewpoint", Dr. S. W. Becker, associate professor of dermatology, University of Chicago School of Medicine.

October 25—Surgical Section. "The Medical Management of Surgical Patients", Dr. Alfred Blalock, professor of surgery, Vanderbilt University School of Medicine, Nashville, Tenn.—Bulletin.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Twenty-five members of the Ashtabula County Medical Society attended a dinner meeting, Tuesday night, October 8, at the Hotel Ashtabula, Ashtabula. Russell H. Knoop, Columbus, repre-

sentative of the Farm Security Administration, explained the F. S. A. plan for the medical care of its clients. Dr. Charles H. Edel lead a discussion of the military preparedness program as it affects the medical profession.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during October:

October 4—Clinical and Pathological Section. "Roentgen Features in Caisson Disease", Dr. J. L. Morton; "Cases of Abortive Poliomyelitis", Dr. J. A. Toomey; "Chronic Constricting Pericarditis Following Osteomyelitis", Dr. C. S. Beck; "Adreno-Genital Syndrome in a 3½-Year-Old Girl", Dr. E. E. Beard; "Tuberculosis of Female Breast", Dr. J. H. Lazzari.

October 9—Medical Practice Section. "Mediterranean Anemia of the Adult", Dr. Morton L. Goldhamer; "Changes in Reticulo-Endothelial System Produced by Urine Extracts of Leukemia Patients", Dr. Robert W. Heinle; "Infectious Mononucleosis", Dr. Reuben Straus and M. T. Bernstein.

October 23—Obstetrical and Gynecological Section. Symposium on Late Toxemias of Pregnancy. "Aspects in Pathology", Dr. Anna M. Young, discussion opened by Dr. Harry Goldblatt; "Internal Medical Aspects", Dr. Max Miller, discussion opened by Dr. A. C. Siddall,

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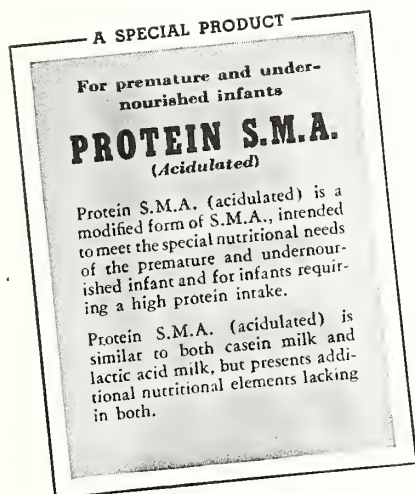
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Oberlin; "Obstetrical Aspects", Dr. C. T. Hemmings, discussion opened by Dr. E. D. Saunders.

October 29—Military Section. "Recent Developments in Anesthesia of Significance to the Military Surgeon", Dr. B. B. Sankey.

October 30—Industrial Medicine and Orthopedic Section. "Injuries to the Elbow", Dr. H. V. Phelan; "Tennis Elbow", Dr. James Wychgel; "Bladder Injuries", Dr. C. R. Nuckolls; "The Acetabular Shelf Operation", Dr. T. A. Willis.—Bulletin.

GEAUGA

The Geauga County Medical Society met Wednesday, September 25, with the president, Dr. C. F. Gilmore, Chesterland. Dr. J. Henry Lazzari, Cleveland, spoke on "The General Practitioner and the Cancer Problem". He illustrated his talk with lantern slides, which made it doubly interesting.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. J. N. McCann, Youngstown, spoke on "The Anemias", at a meeting of the Columbiana County Medical Society, Tuesday night, October 8, at Lisbon.—News clipping.

PORTAGE

At a meeting of the Portage County Medical Society, Thursday evening, October 3, at the office of Dr. A. J. Silbiger, Atwater, Dr. William B. Wartman, of the Institute of Pathology of Western Reserve University, Cleveland, spoke on "Coronary Diseases".—E. J. Widdecombe, M.D., secretary.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

TUSCARAWAS

Dr. Howard W. Brettell, Steubenville, addressed the Tuscarawas County Medical Society,

Thursday evening, October 10, at New Philadelphia, on the subject "Why Ohio Needs an Enabling Act for Medical Service Plans". Dr. Brettell is a member of the Committee on Medical Service Plans of the Ohio State Medical Association.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

"Common Problems in Obstetrics", was the subject discussed by Dr. Dana W. Cox, Columbus, at a meeting of the Guernsey County Medical Society, Thursday noon, September 19, at the Berwick Hotel, Cambridge.

Dr. M. C. McCuskey, Senecaville, spoke on "Dislocation of Cervical Vertebra", at a meeting of the society Thursday noon, October 3.—O. Reed Jones, M.D., correspondent for *The Journal*.

LICKING

Dr. George I. Nelson, Columbus, spoke on "Congestive Heart Failure", at a meeting of the Licking County Medical Society, Tuesday night, September 24, at Newark.—News clipping.

MUSKINGUM

At a meeting of the Muskingum County Academy of Medicine, Wednesday evening, October 2, at the University Club, Zanesville, Dr. Harold Green, Cleveland, gave a talk on "Heart Disease".—News clipping.

PERRY

Dr. Carl W. Brown, Lancaster, member of the Committee on Medical Service Plans of the Ohio State Medical Association, spoke on "Why Ohio Needs an Enabling Act", at a meeting of the Perry County Medical Society, Thursday noon, October 17, at the Park Hotel, New Lexington.—F. J. Crosbie, M.D., secretary.

WASHINGTON

Dr. Charles W. Pavey of the Department of Obstetrics, Ohio State University College of



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WINDSOR, ONT.



Medicine, Columbus, was guest speaker at a meeting of the Washington County Medical Society, Wednesday evening, October 9, at the Wakefield Hotel, Marietta.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

Dr. Frank H. Mayfield, Cincinnati, spoke on "Management of Head Injuries", at a meeting of the Hempstead Academy of Medicine, Monday evening, October 14, at the Portsmouth General Hospital. The program also included a motion picture on "Eclampsia".—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

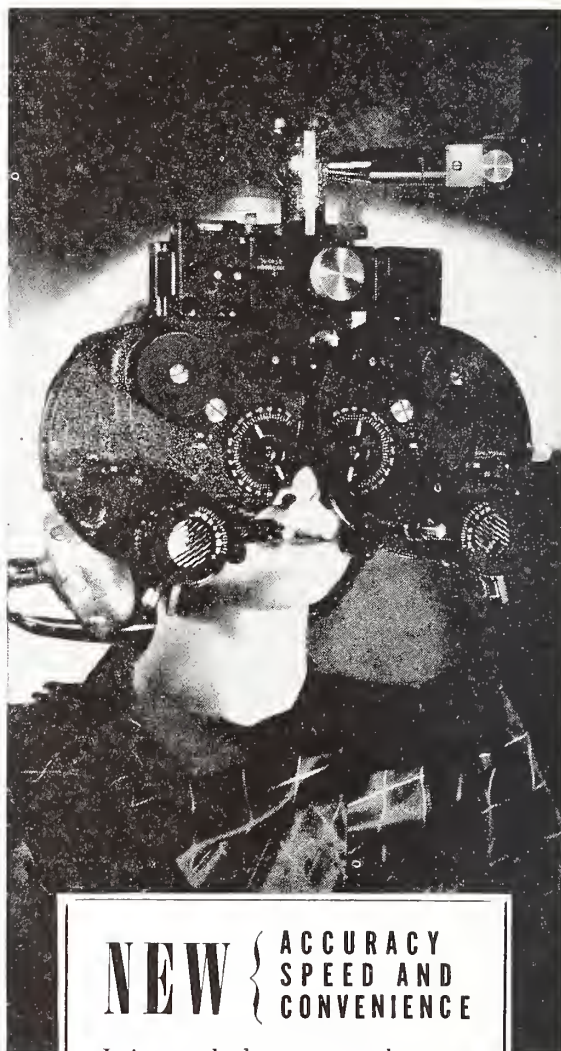
Dr. Walter G. Maddock, associate professor of surgery, University of Michigan Medical School, discussed "Water Balance in Surgical and Medical Procedures", at a meeting of the Columbus Academy of Medicine, Monday evening, October 21, at the Art Gallery, Columbus.—Bulletin.

Approximately 100 wives of members of the Academy attended a meeting at the home of Mrs. M. E. Millhon, Thursday afternoon, September 26, for the purpose of forming a Woman's Auxiliary. Mrs. H. M. Clodfelter, director for the Tenth District of the Woman's Auxiliary to the Ohio State Medical Association, was temporary chairman and Mrs. Phillip T. Knies, temporary secretary. Committees were appointed to prepare a slate of officers and draft a constitution and by-laws. Dr. Jonathan Forman spoke on "Why We Need an Auxiliary".—News clipping.

KNOX

Dr. William H. Miller, Columbus, addressed the Knox County Medical Society, Thursday, September 26, at Mt. Vernon, on "X-ray Treatment and Fever Therapy".—Julius Shamansky, M.D., president.

The organization meeting of the Woman's Auxiliary was held at the Alcove, Mt. Vernon, Tuesday afternoon, October 8. Mrs. J. E. Purdy, Canton, President of the Woman's Auxiliary to the Ohio State Medical Association, was presented by the acting chairman, Mrs. Julius Shamansky. Mrs. Purdy explained the purposes and aims of the auxiliary, its accomplishments in 38 other states, and the progress being made in Ohio in organizing local auxiliaries. Committees were appointed to draft a constitution and by-laws and to nominate officers for the Knox County Auxiliary. The group voted to meet on the first Wednesday of every month. The next meeting



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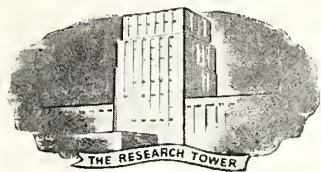
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STUDIES IN THE AVITAMINOSES



This page is the eleventh of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the November 9 issue of The Journal of the American Medical Association.

The Gingival Manifestations of Vitamin C Deficiency



Gingival lesions are said to be among the most frequent anatomic changes occurring in scurvy. They occur only after dentition has taken place, and are most severe when the teeth are deformed or broken. The pathologic process begins as a hyperemia which is rapidly followed by destruction of the epithelium, and ulceration. Even in the early stages bleeding is readily produced by slight trauma; hemorrhages, while they do not lead to a

great loss of blood, may be prolonged and difficult to control. The gum necrosis is usually accompanied by dental porosity. In the advanced stages of scurvy, the teeth are loosened due to destruction of the alveolar process, and the ulcerative lesions may extend to the mucous membrane of the cheeks and tongue. Gangrene has been described as a sequel of advanced untreated scurvy.



will be held November 6 at the home of Mrs. George B. Imhoff, Mt. Vernon.—News clipping.

ROSS

"Treatment of Pneumonia", was the subject presented by Dr. C. E. Richards, Gallipolis, at a meeting of the Ross County Academy of Medicine, Friday evening, September 13, at Chillicothe.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

A motion picture on "Technique of Sacral Block", was shown at a meeting of the Ashland County Medical Society, Friday evening, October 11, at the Ashland Country Club. The proposed Enabling Act was discussed by Dr. Carl R. Damron, Mansfield, member of the Committee on Medical Service Plans of the Ohio State Medical Association.—H. Wayne Smith, M.D., secretary.

Mrs. L. G. Sheets is chairman of the organization committee for the Woman's Auxiliary. A nominating committee has been appointed, and a committee to draft a constitution and by-laws.—News clipping.

HURON

The following are the officers of the recently organized Woman's Auxiliary to the Huron County Medical Society: Mrs. J. D. Bradish, New London, president; Mrs. George F. Linn, Norwalk, president-elect; Mrs. A. H. Kimmel, Norwalk, vice-president, and Mrs. T. H. Smith, New London, secretary-treasurer.—News clipping.

LORAIN

Dr. A. C. Siddall, Oberlin, discussed "Etiology of Pregnancy Toxemias", at a meeting of the Lorain County Medical Society, Tuesday, October 8, at the Lorain Country Club.—I. L. Levin, M.D., secretary.

MEDINA

A roundtable discussion of different phases of pneumonia and their treatment was held at a meeting of the Medina County Medical Society, Thursday, October 3, at the Evanon, Medina.

Mrs. H. T. Pease, Wadsworth, is organization chairman of the Woman's Auxiliary, which adopted a constitution at a meeting at Seville, Thursday night, October 3. The nominating committee will present a slate of officers at the next meeting, November 14.—News clipping.

News Notes

Akron—"Treatment and Prophylaxis of Commoner Contagious Diseases", was the topic discussed by Dr. James G. Kramer at a meeting at Wooster of the Wayne County Professional Registered Nurses Club.

Athens—Dr. Robert C. Hume, New York City, has been appointed assistant physician of the health service at Ohio University.

Chillicothe—The Norfolk and Western Surgeons' Association elected Dr. Ralph W. Holmes first vice president at its recent annual meeting in New York City.

Cleveland—Approximately 75 colleagues of Dr. Joseph J. Kotershall gave him a testimonial dinner at the Hotel Hollenden, at which Dr. George J. Greene, president of the Cleveland Board of Education, presided. Dr. Kotershall was given a gold watch at the dinner. The presentation was made by Dr. C. L. McDonald, chief of staff at St. John's Hospital.

Cincinnati—New staff officers of Bethesda Hospital are: Dr. Daniel J. Davies, chief; Dr. David W. Heusinkveld, vice-chairman; and Dr. Spencer Hagen, secretary-treasurer.

Cincinnati—More progress has been made in the control of communicable diseases than in any other type of sickness, Dr. E. H. Schoenling, health commissioner of Hamilton County told the County Teacher's Institute.

Columbus—Dr. Earl W. Euans, recently made Supreme Surgeon Emeritus of The Order of United Commercial Travelers of America, has resumed private practice.

Columbus—Dr. Russel G. Means, president of the Columbus Academy of Medicine, led a discussion of local health activities at a meeting of the board members of 54 agencies supported by the Community Fund.

Fredericktown—Advancements in medicine in the 48 years he has practiced were reviewed by Dr. E. V. Ackerman at a meeting of the Lions Club.

Lima—A review of social diseases and their effect on the history of the world was presented by Dr. H. C. Weisenbarger at a meeting of the

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Working with institutionalized patients, Reifenstein and Davidoff did not find 'Benzedrine Sulfate' therapy satisfactory in chronic alcoholism.

In private practice, on the other hand, Bloomberg had good results in a series of twenty-one closely supervised chronic alcoholics. (New Eng. J. Med., 220:129, 1939). He suggested that the use of 'Benzedrine Sulfate' may permit a sufficient interval of sobriety for the institution of the usual and more fundamental psychotherapeutic approaches.

Initial dosage should be small, 1/4 to 1/2 tablet (2.5 mg. to 5 mg.). If there is no effect, this should be increased progressively. Normal dosage is from 1 to 3 tablets (10 mg. to 30 mg.) daily, one-half of the dose at breakfast and the other half at noon.

*Physicians wishing to use 'Benzedrine Sulfate Ampules' may obtain them on direct order from us.



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Rotary Club. His topic was "Twenty Millions Have It".

Logan—Dr. W. B. Lacock, health commissioner of Vinton and Hocking counties, has been granted a leave of absence while on extended active duty as a Captain in the Medical Reserve Corps of the United States Army.

Malinta—Dr. and Mrs. J. H. Fiser celebrated their 50th wedding anniversary September 2. He has practiced medicine in Henry County for 46 years.

Millersburg—Dr. James S. Elder has resigned as health commissioner of Holmes County, effective December 31, 1940.

Pandora—Dr. Harry A. Neiswander has been appointed health commissioner of Putnam County, succeeding Dr. L. M. Piatt who resigned to take a year of postgraduate study in roentgenology.

Piqua—Contracts have been let for the construction of a third floor on the new wing of the Piqua Memorial Hospital. Total cost of the improvements, including new operating rooms, will approximate \$35,000.

Portsmouth—Dr. Harry F. Rapp has been re-elected chief of staff of Mercy Hospital. Dr. Philip D. Weems is assistant chief.

Ravenna—Dr. L. W. Prichard has been practicing medicine here for 48 years.

Sandusky—Dr. H. L. Sowash has been appointed part-time physician for the local public schools.

Spencerville—The delivery of 4,214 babies, over a period of 58 years, is the record of Dr. J. R. Welch, 81-year old physician still in practice here.

Toledo—"The Medical and Social Aspects of Syphilis", was the subject discussed by Dr. R. J. Borer at a meeting of the Brotherhood of St. Paul's Lutheran Church.

Toledo—Dr. Edward J. McCormick has been appointed a member of the recently organized board of health.

Toledo—Construction of a \$500,000 modern fireproof addition to St. Vincent's Hospital will start early in 1941.

Twinsburg—Dr. Robert B. Chamberlin presented his own motion picture entitled "A Doctor's Dream" at a meeting of the Northfield Lions Club. The picture covered a trip made by Dr. Chamberlin to the Lake of the Woods in Canada this summer.

Woodsfield—Dr. R. A. Burkhart has opened an eight-room medical center on the same site the first house erected in the village was built.

Zanesville—Dr. O. I. Dusthimer has been elected chief of staff of Bethesda Hospital. Other officers are: Dr. A. C. Ormond, vice-president, and Dr. P. H. Elliott, secretary.

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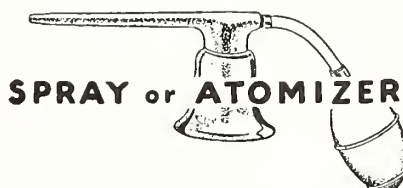
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The Physician's Bookshelf

Electrocardiography, by Chauncey C. Maher, B.S., M.D., and Paul S. Wosika, M.D., M.S. (3rd revised edition. *The Williams and Wilkins Company, Baltimore, Md.*; \$4.00). This is a most excellent small book, especially for one without previous training in this field, since it takes up the conduction system and the mechanism of the electrocardiograph and its reaction to both normal and abnormal stimuli. The authors lead one through various physiologic tracings and gradually approach the pathologic, explaining step by step with tracings the mechanism in each.—E. J. Gordon, M.D.

Chemistry and Medicine, edited by Maurice B. Visscher (*University of Minnesota Press, Minneapolis*; \$4.50), consists of 14 papers delivered at the fiftieth anniversary of the founding of the Medical School at Minnesota. Progress in the application of chemistry to medicine including recent investigations in metabolism, immunity, chemotherapy, and the nervous control of the organism are presented by such outstanding men as Best, Bronk, Burr, Carmon, Freundlich, Gasser, Heidelberger, Helmholtz, Long, McQuarrie, Peters, Lee Irvin Smith, Robert G. Green, and Bisscher. These papers offer an excellent opportunity for the average physician to catch up with one of the most recently developed and more rapidly expanding aspects of medical science.

An Anatomical Analysis of Sports, by Gertrude Hawley, M.D., formerly in charge of Physical Education for Women at Northwestern and Stanford (*A. S. Barnes, New York*; \$3.00), explains the part that anatomy, physiology, physics, and chemistry play in archery, baseball, basketball, fencing, field hockey, football, golf, swimming and diving, tennis, track and field, skiing and skating.

Minor Surgery, by Frederick Christopher, M.D. (4th Edition, *W. B. Saunders Company, Philadelphia*; \$10.00), has proved a popular text as four editions in 10 years will testify. Much new material has been added including clinical recognition of rabies in dogs, tetanus toxoid, the tannic acid-silver nitrate treatment and some 20 other topics. In all, a most worthy text for all who recognize the importance of doing the "minor" things well.

God Rides a Gale, by James Robert Peery (*Harper and Brother, New York*; \$2.50), is the story of the trap which Dr. Kilgore has forged for himself through 20 years of practice in the shiftless town of Poindexter, Mississippi. The characterizations are excellent and the story holds.

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Clinical and Experimental Aspects of the Mode of Action of Sulfanilamide-Sulfapyridine Compounds

RALPH R. MELLON, M.D.

IT is my pleasure, as well as my privilege, to present to the physicians of the Ohio State Medical Society some of the latest developments of importance from the sulfanilamide "front." In framing up this discussion I have proceeded on the assumption that your natural curiosity as physicians will demand to be told something more, than that these drugs do such and such in a wide variety of infections—for you already know that. What you may not know perhaps, is the "why" of sulfanilamide's baffling behavior in some of your clinical cases—and even more important, what you're going to do about it when it happens.

For example, why will these drugs act so miraculously in the fulminating blood stream infections caused by hemolytic streptococci, and usually fail completely when the infection is localized as an abscess; for after all, the latter is by comparison, a benign situation? Why too is it so often necessary for you to continue your therapy after the patient is afebrile, or convalescent, or even clinically cured? Why is it possible to repeatedly sterilize the blood of a case of green-streptococcus endocarditis, only to have it eventually recur and with fatal issue ultimately? Because the answer to these and similar questions is intimately bound up with a sound point of view as to the drug's mode of action, I shall focus much of my discussion about this consideration.

However, before entering into this more general discussion I cannot refrain from giving you

The Author

● Dr. Mellon, Pittsburgh, Pennsylvania, is a graduate of University of Michigan Medical School, 1909; Harvard University (Dr. Public Health) 1916; member American Association of Pathologists; American Society of Immunologists; Society of American Bacteriologists; director, Institute of Pathology, The Western Pennsylvania Hospital, Pittsburgh; director of Pneumonia Research Fund, The Mellon Institute of Industrial Research.

a clinical and experimental résumé on what are to us the most exciting new derivatives of sulfanilamide, namely, the sulfathiazoles. The original synthesis of these drugs and their application to pneumonia has resulted from a co-operative arrangement between our laboratories and those of The Maltbie Chemical Company of Newark, New Jersey. Last Fall, Gross and Cooper¹ published the first experimental work done with them. The germ used for testing was the pneumococcus, inasmuch as pneumonia has been our primary clinical problem, as it has been Pittsburgh's chief medical problem for decades. Later, The Squibb Company became interested in these compounds and is now developing them conjointly with The Maltbie Chemical Company, even though at the moment they are not available for general medical use.

Our studies to date show that there are two outstanding highlights about the therapeutic

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action of the sulfathiazoles against the pneumococcus. The first is that they are just as effective therapeutically as sulfapyridine; and the second, that most of the undesirable toxic features of the latter have been eliminated. I refer now particularly to the severe nausea and vomiting that are characteristic of the action of sulfapyridine throughout the whole course of the administration of the drug. With the sulfathiazole on the other hand, nausea and vomiting only occasionally occur and even when they do, they are transient features. In addition to this, the intense apprehension and fear so commonly present in pneumonia, as well as in other cases of fulminating infection, is allayed in a noteworthy manner; and the patient's appetite is stimulated to a noteworthy degree. The reason for these significant features of the new drug's behavior I shall return to presently in connection with the mode of action of the sulfonamide compounds as a whole.

The chief toxic feature of these drugs that remains is their occasional tendency to cause renal stones, the same as occurs with sulfapyridine, and some of the more general toxic features that are now well known for sulfanilamide. But it would appear of the greatest clinical promise that the clinical effectiveness of sulfapyridine in pneumonia should be retained while its objectionable and serious toxic features have been to such a large extent eliminated.

Our own series of pneumonia cases during the past winter ran between 40 and 50 and the type distribution may be said to have included some of the most serious that we have in Pittsburgh pneumonias. The mortality in this series was the conventional five per cent that one usually associates with sulfapyridine's effectiveness. This series of cases is relatively small, but Drs. Flippin and Pepper of the Department of Medicine of the University of Pennsylvania had a series of more than 250 cases this past Winter and their evaluation of the series both from the therapeutic standpoint and in regard to toxic manifestations is exactly as I have given you.

This in our opinion constitutes a striking advance in pneumonia therapy, but in the promise it holds forth for the more severe types of staphylococcal infections, the potentialities exhibited are unique, because it is the first of the sulfonamide compounds that seem of critical importance in this type of case. Dr. A. F. Knoll, of our service, has observed the recovery of four out of five cases of severe staphylococcus aureus septicemia, as well as three cases of staphylococcus pneumonia. One of the latter, occurring in a physician, was of a most desperate order, and he had been given up to die by his fellow physicians previous to the administration of sulfathiazole. His response to this treatment was unusually prompt.

There is some evidence that the methylsulfathiazoles are even more effective in staphylo-

coccus infections than the unmodified drug, but on the other hand, they have shown sufficient tendency to cause peripheral neuritis that they are no longer being prepared for experimental use. While no final evaluation of their efficacy in staphylococcal infections can be made at this time, the evidence so far indicates that they are

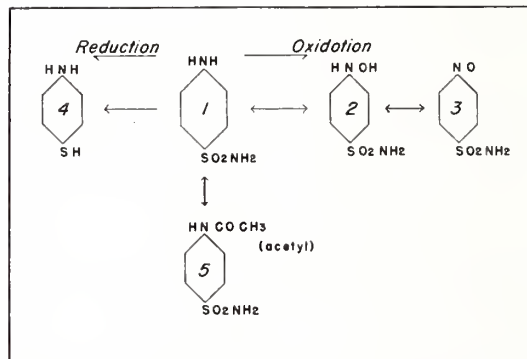


Diagram 1—Four-hour period. Shows scattered pneumococci in exudate composed of polymorphonuclear cells. The pneumococcus capsule is visible.

the most promising drugs that have been developed to date for the acute forms of this disease. On the other hand, they have shown no significant improvement in the treatment of chronic osteomyelitis cases caused by staphylococci. In other words, they possess in common with the other sulfonamide derivatives a certain lack of ability to overcome localized purulent infections despite their ability to cure dramatically the highly virulent fulminant forms of infection caused by the same germ.

I have already indicated that the explanation for this rather paradoxical occurrence is intimately bound up with the mode of action of the sulfonamide compounds as a whole, which we shall now consider. It is a well known fact that abscesses and other necrotic foci are notoriously lacking in their content of oxygen. Not only is the circulation of such foci seriously impaired, but the broken down products of pus such as the peptone-like substances, tend to absorb any oxygen that might otherwise have entry to the focus of infection. In other words, the local conditions are probably so largely anaerobic as to block effectively any oxidative changes in the sulfanilamide molecule.

Diagram I illustrates the oxidation-reduction potentialities of the sulfanilamide (1). The NH_2 , otherwise known as the free amino group, is susceptible to varying degrees of oxidation, the first of which is shown in the diagram (2).

In place of the NH_2 group we have the NHOH group which is the hydroxylamine derivative. When more completely oxidized, it is converted to the nitroso derivative (3). It is this latter one that is capable of oxidizing hemoglobin to

methemoglobin and appears to be closely related to the oxidation products responsible for the cyanosis developed by most sulfanilamide patients.

In other words, we believe the nitroso, or NO, group to be responsible for the toxic symptoms, but it does not appear to be responsible for the bacteriostatic effect on the bacteria themselves. This effect is brought about by the hydroxylamine group (2) representing the stage of intermediate oxidation. We have already demonstrated that this derivative is enzyme-poisoning in its effects,

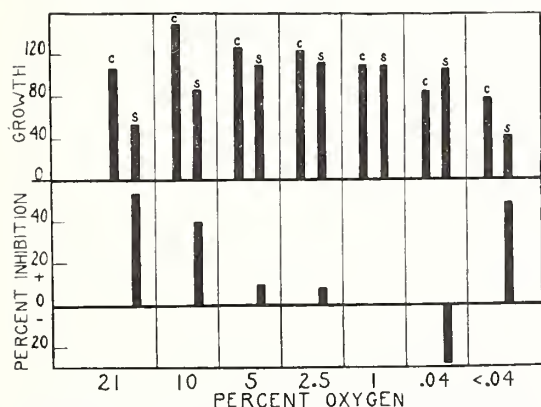


Diagram 2—Twelve-hour period. Capsule of the individual pneumococci is greatly swollen, and is sufficiently altered structurally as to bring about an auto-agglutination of the microorganisms about the pus cells.

being particularly active against the enzyme catalase, about which we shall have more to say presently.

That this intermediate stage of oxidation is important is illustrated by a diagram (5) which is representative of the acetyl derivative of sulfanilamide. It is formed to a large extent in the body as the result of the action of the liver, presumably. We know that this compound is completely inactive and this we should anticipate on the basis of the oxidation theory because, chemically speaking, it results in a blockade of the NH_2 group, thereby preventing its oxidation. Diagram IV shows the possibilities inherent in the sulfanilamide groups for reduction of the SO_2NH_2 group to the SH or thiophenol group. This type of sulfide is particularly toxic and it opens up one theoretical possibility that the drug may be capable of acting under semi-anaerobic or anaerobic conditions. More experimental information however is desirable in connection with the possibilities of the drug's mode of action under anaerobic conditions. The most precise results developed to date are those of Dr. Broh-Kahn of the University of Cincinnati, who demonstrated that the colon bacillus under very special conditions of anaerobiosis is vulnerable to the bacteriostatic action of sulfanilamide. Particularly important in his work was the demonstration that the drug caused the poisoning of an oxygen transportase (enzyme).

It so happens that under clinical conditions virtually all of the bacteria that are permanently affected by sulfanilamide are aerobes rather than anaerobes. This diagram shows the dependence of the pneumococcus on the presence of molecular oxygen if sulfanilamide's bacteriostasis is to be maximally effective. It is clear that the average growth inhibition in the presence of air (21 per cent oxygen) is 54 per cent. When a 10 per cent concentration of oxygen is employed, the inhibition is 40 per cent, and the decrease continues until a concentration of 1 per cent oxygen is reached where the inhibition is essentially zero. No hydrogen peroxide was detected in any culture at the lower level, and correspondingly bacteriostasis almost disappeared between the 10 per cent and 5 per cent oxygen levels.

The significance of peroxide in this connection refers to the consideration previously discussed with Diagram I. It was there indicated that the hydroxylamine derivative has been shown to poison the enzyme catalase. Now, inasmuch as the normal function of this enzyme is to destroy the toxic hydrogen peroxide as soon as it is liberated by the bacterium, the failure to perform this function would naturally result in the accumulation of peroxide in the cultures and it is to this factor that no inconsiderable amount of the bacteriostatic action of sulfanilamide can logically be attributed.

Our evidence also shows that peroxidase is at least partially inactivated and the experiments of others have indicated a similar effect on dehydrogenase. There is reason to suspect that carbonic-anhydrase may also be inactivated and experiments in this direction will soon be under way.

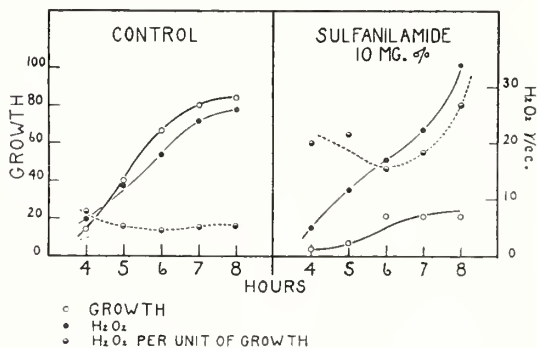


Diagram 3—Sixteen-hour period. Further swelling of the capsule, which at this time shows a somewhat irregular, serrated margin.

That hydrogen peroxide does actually accumulate in demonstrable amounts in pneumococcus cultures containing 10 mgm. of sulfanilamide is clearly shown in Diagram III. In the control tube containing no sulfanilamide the two inclined curves show clearly that between the 4th and 8th hours peroxide is accumulating in the cultures, although it keeps pace with the multiplication of the bacteria. That is to say, there is no increase

of the peroxide per bacterium and this is shown by the broken line of the diagram, which shows virtually the same amount of the peroxide from the 4th to the 8th hours, and this is the period where bacteriostasis is especially marked.

In the right hand section of the diagram illustrating the tubes containing sulfanilamide, the situation is wholly different. That is to say, the broken line indicating the amount of peroxide shows a rise between the 4th and 8th hours so that there is registered 30 gammas per cc. at the end of this period. The lowest curve of the figure indicates that the pneumococci have multiplied very slightly during this period, which can only mean that the amount of peroxide per bacterium has increased several times. In fact, we have brought about a similar degree of bacteriostasis in pneumococcus cultures by adding amounts of fresh peroxide comparable to those which have accumulated in these cultures under the influence of sulfanilamide.

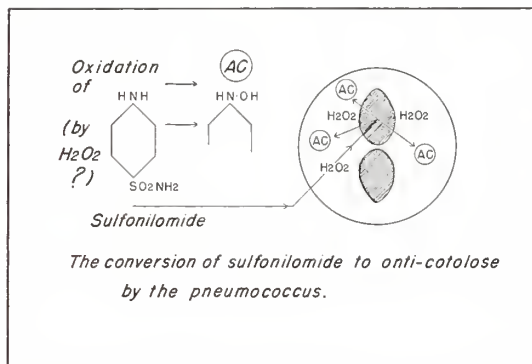


Diagram 4—Twenty-four hour period. In addition to capsular swelling the pneumococci themselves show distortion and apparent obliteration of certain organisms within the capsule.

The above figure is illustrative of the changes that we picture as taking place when sulfanilamide diffuses through the capsule of the pneumococcus into the interior of the cell. Under normal conditions hydrogen peroxide is being elaborated by the cell, but is immediately destroyed when the enzyme catalase, which is always present in the blood, diffuses into the cell which results in its destruction into water and oxygen. However, when the sulfanilamide is converted to anti-catalase (AC) by the oxidative processes in the cell, diffusion of the catalase from the exterior is blocked, and this results in the accumulation of peroxide, not only in the cell, but in the surrounding medium, as is indicated by its accumulation, as pictured in Diagram III.

The fact that sulfanilamide is capable of being converted by the germ itself into the anti-catalytic hydroxylamine derivative, is a most important fact in connection with the drug's mode of action. It means that its conversion into the active form need not be brought about by the cells of the host, a fact which appears to be of cardinal

importance, owing to the great instability of the active form per se. That is to say, if the conversion to the hydroxylamine derivative were not capable of being made by the germ, but only by the host cells, it would probably be broken down completely before enough of it had a chance to reach the germ so that it could be effective.

That this conversion takes place within or on the surface of the germ itself, and does not escape into the surrounding medium, is supported by the studies of Chandler and Janeway (2). Thus they

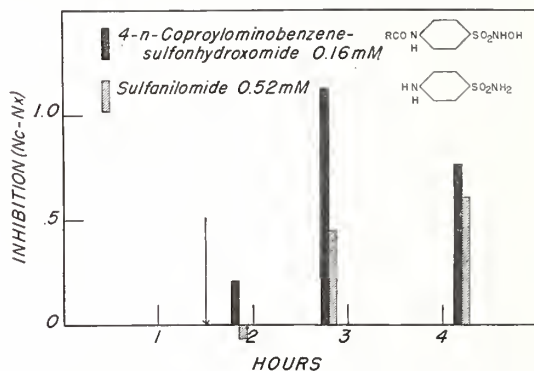


Diagram 5—Thirty-six hour period. Distortion of the microorganism is increased; they show a noteworthy tendency to become bacillary and to be ingested by the polymorphonuclear cells.

show that a sulfanilamide containing medium in which growth-inhibited hemolytic streptococci are present, does not of itself contain the bacteriostatic substance, aside from that which is anchored on the surface of the germs themselves. Moreover, by washing the germs this substance is easily freed from the bacterial body. Now if these washed germs are put into a fresh sulfanilamide medium, they grow freely for several hours before showing any evidence of being

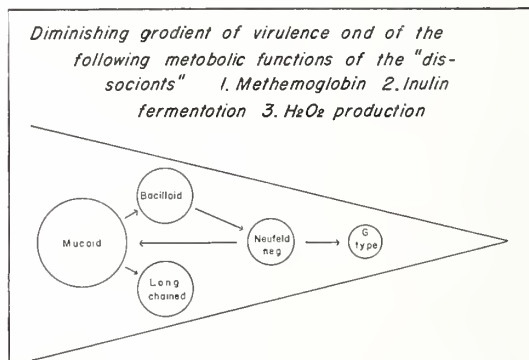


Diagram 6—Forty-four hour period. Marked phagocytosis of the altered pneumococci by the large mononuclear cells, which are more effective in the destruction of pneumococci than are the polymorphonuclear cells.

affected by the drug. On the other hand, if bacteria whose growth has been inhibited by sulfanilamide-containing media, are transferred into such sulfanilamide media, they continue to be inhibited.

These experiments go far toward explaining one of the most consistently occurring puzzles of sulfanilamide's action in the test tube. For the first few hours the germs show no evidence of being affected by the drug, in fact their growth seems to be stimulated by it. But from the 4th to the 8th or 10th hours, their growth rate is slowed down very materially. Furthermore, the amount of the sulfanilamide beyond a certain concentration has no increased unfavorable effect on germs. This is quite the opposite from what we should expect if we added formaldehyde, mercuric chloride, or carbolic acid, to virulent microorganisms; for the effect here, particularly of large amounts, is almost immediate. This all indicates that the drug must be converted to some bacteriostatic form, but only after the germs have started to grow in it appreciably. And as the above figures have postulated, this substance is hydroxylamine, or some closely related derivative.

In such event, it would be expected that the hydroxylamine derivative itself, as prepared by the chemist, would have an almost immediate effect on the organism. We find that this anticipation is realized in Diagram V, which contrasts the bacteriostatic effect of sulfanilamide and one of its hydroxyl derivatives. It shows that, within less than two hours after the organisms have been brought into contact with the latter compound, a marked inhibitory effect occurs, which is enormously increased before the third hour; while with the straight sulfanilamide there is only a moderate bacteriostatic effect at this time and at the second hour the culture's growth has actually been stimulated.

PRACTICAL IMPLICATIONS OF THE OXIDATION THEORY

The first thing for the clinician to remember is, that sulfanilamide, as it is fashioned in the laboratory of the chemist, is as harmless to bacteria as sugar of milk were it not for the capacity that it possesses to be oxidized to an "activated" form by the bacteria themselves. Thus their growth is impeded, or as we say, bacteriostatic. Obviously, it means that the anaerobic infection would not be so likely to be overcome as aerobic ones, although under special environmental conditions perhaps, an effect on anaerobic ones is distinctly a possibility. Recent experimental work at the Mayo Clinic indicates that sulfanilamide is ineffective with the gas bacillus infection, and clinically the results have been anything but convincing. As far as we know, anaerobic streptococci are not affected by this drug. This situation is further high-lighted by the work of Meleny³ at Columbia University. The surgeons, I know, are especially aware of the success of his zinc peroxide treatment for the spreading indolent type of ulcer caused, almost invariably he believes, by hemolytic streptococci

that are semi-anaerobic in their growth requirements. He shows clearly that the zinc per se is ineffective but stresses the necessity that the zinc peroxide be active, meaning thereby that it be capable of liberating hydrogen peroxide. In other words, the compound functions largely as a carrier of hydrogen peroxide which is the active bacteriostatic agent.

This point of view accords rather perfectly with our hydrogen peroxide theory of sulfanilamide's action as just set forth, thus forming a common meeting ground for the mode of action of the local antiseptic and the true chemotherapeutic agent. The failure of sulfanilamide per se in these ulcerative conditions appears to be due to its inability to yield oxidation potentials in the tissues sufficiently high to kill the anaerobe or to force it to adapt to the aerobic state. In case of its conversion to an aerobe, as we observed in one case, sulfanilamide administration then resulted in cure whereas it failed to affect the case as long as the streptococcus existed as an anaerobe.

THE DETOXIFICATION OF SULFANILAMIDE AND THE RESERVOIR ACTION OF NEW SULFANILAMIDE DERIVATIVES

Diagram V also gives the formula of a new compound of sulfanilamide prepared by the Sharp & Dohme Laboratories in conformity with our hydroxylamine postulate of the hydrogen peroxide theory. The drug appears to be unique from the clinical standpoint in that over 100 clinical cases treated with it have shown no cyanosis nor gross indications of methemoglobin formation. Our animals tolerate large amounts of it over long periods of time without weight loss or other signs of toxicity. In other words, it is so much less toxic than sulfanilamide as to be very noteworthy.

The fact that the excellent therapeutic powers of sulfanilamide are maintained led us at first to ascribe this action exclusively to the hydroxylamine portion of the molecule which, it will be recalled, is poisonous to certain enzymes, catalase especially. But our experiments have also shown that the acyl linkage at the upper end of the molecule is slowly shelled off in vivo, thus liberating very small amounts of the original sulfanilamide. This liberation is presumably so slow that the original compound may be viewed as a reservoir for sulfanilamide.

Such an action forms a new note in the therapeutics of the sulfonamide compounds, being the equivalent of the administration of very small doses of it, at intervals so frequent as to be rather impractical, if given orally, let us say. This implies that the amount of free sulfanilamide present in the blood at any one time is not sufficient to yield appreciable amounts of the methemoglobin-forming oxidant, which our

theory postulates (See Diagram I) as the grouping which imparts toxicity to the molecule.

The theory also postulates that the toxic fraction has no therapeutic action, which with this compound must clearly be explained on some other basis than the methemoglobin-forming oxidant because in vivo it is virtually absent. The only other demonstrable linkage present is the hydroxylamine one and we are therefore forced to resort to it as implementing directly the bacteriostasis. This also accords with the above theory as shown in Diagram V.

HOW LONG A PERIOD SHOULD THE DRUG BE ADMINISTERED IN ACUTE INFECTIOUS PROCESSES?

Another point of clinical interest, intimately associated with the drug's mode of action, concerns the necessity for its prolonged administration and frequent doses, if recurrences of the infection are to be avoided. To understand this, one need but keep in mind that the drug's action on a bacterial culture is not primarily bactericidal, but rather is bacteriostatic, and that the actual killing of the germs is brought about by the blood serum and other body fluids, particularly by the leucocytes.

Even so, the bacteria have a high survival value and show their resentment at being summarily slaughtered, by adapting themselves to such adverse influences in ways that are indeed remarkable. An indication of their versatility is seen in the long chains and other pleomorphic forms of pneumococci that occur in experimental pneumococcal peritonitis in the mouse. These pleomorphic forms have been generally, and I might say erroneously, regarded as bacterial involution forms. We have now proved that in reality, they are independent phases in the life history of the bacterial culture. As such they progressively lose their virulence and finally their capsule, but the fact that they may readily revert to forms of highest virulence when not in contact with the drug makes it imperative that its administration be continued, until the phagocytes finally dispose of these mutation-like phases of the bacterium which, although lacking somewhat in virulence, are very tenacious of life.

The various pleomorphic forms in Figures 1-6 indicate rather clearly that the organisms are undergoing a progressive degradation change from the mucoid, highly virulent phase to culminate in a non-mucoid, non-encapsulated organism which is devoid of virulence. Intermediate stages between these two extremes are represented by pleomorphic bacilloid forms, long-chain structures, and decapsulated organisms which no longer give the Neufeld test (Diagram VI). When these different phases in the life history of the organism are arranged in series, with regard to the degradation of their

metabolic functions, it is seen that they constitute a diminishing gradient with respect to the formation, first of methemoglobin; second, of inulin fermentation; and third, of peroxide production; and finally, of virulence.

NATURAL RESISTANCE FACTORS, AND THE DRUG'S MODE OF ACTION

Now for another clinical consideration often baffling to the chemotherapist who is likely to expect too much of his drug. Not infrequently you will find cases which the drug alone won't cure, but this cannot always be explained on a special resistance possessed by the bacterium to the drug. Nor may we ascribe it to lack of antibodies. While there may be a number of reasons for such occurrences, generally speaking they are often to be found in the individuality of the patient himself.

Perhaps I can point my meaning by referring to the well-known high mortality of chronic alcoholics to pneumonia. The vitamin studies of Minot and his co-workers⁴ have shown that the peripheral neuritis of alcoholics is really due to a vitamin deficiency, particularly vitamin B₁, and it had come to be suspected by them that the pneumonia mortality is also linked with the alcoholic's malnutrition. Malnutrition of alcoholic origin, as well as forms of other origin, may be manifested in part by a low leucocyte count, and you are all familiar with the serious prognostic importance of this sign in pneumonia, and indeed in any other acute pyogenic infection. Inasmuch as the drug itself is well known to depress the bone marrow in some cases, the physician may find himself "stymied" by this combination of circumstances.

A possible way out has been pointed by the studies of Dr. Arthur Locke of our laboratory, who has shown both the diagnostic and therapeutic bearing of these considerations, as well as an interesting correlation with sulfanilamide's mode of action. Not only has he demonstrated experimentally that certain of the vitamins and hormones are significantly important in their contribution to one's natural resistance to pneumonia, but that these natural resistance factors fall into a category wholly distinct either from the antibodies or the action of drugs such as sulfanilamide.

The experimental basis of Locke's work lies in his successful correlation between a rabbit's ability to warm up after chilling and its natural resistance to pneumococcus infection. The optimum value may be viewed roughly as 30 minutes, meaning thereby that a rabbit which has been chilled to 96°F. requires that long to return to a temperature of 99°F. The specific bearing of these considerations will now be illustrated.

TABLE I
Fitness and Ability to Remove Intravenously Injected Pneumococci From the Circulating Blood

Number of Rabbits Studied	Fitness Rating	Number Pneumococci Injected*	Number Remaining Unremoved, After:			Per Cent of Group Surviving
			0.5 Hrs.	1.0 Hr.	3.0 Hrs.	
12	>0.6	7 to 83	0 to 4	0	0	92
13	0.6 to 0.5	6 to 80	0 to 8	0 to 2	0 to 4	69
11	<0.5	6 to 34	1 to 24	1 to 12	2 to 22	0

*Per cc. of estimated blood volume.

The above Table shows the relation between the warming-time of different rabbits and their ability to remove highly virulent pneumococci from the circulating blood. Warming-time, in place of being expressed in minutes, is expressed as a numerical value, the natural derivation of which is not important here, but can be gotten by reference to studies already published.⁵ It is spoken of as the animal's fitness rating. If the fitness rating is high, 92 per cent of a group of rabbits survive, usually without symptoms; if the fitness rating is only moderate, 69 per cent survive; and when it is less than a value of 0.5, indicating a poor rating, none of the animals survive.

factors, and also when vitamin C is combined with sulfanilamide. The lower part of the Table is particularly instructive, showing that in rabbits with a good fitness rating, sulfanilamide and vitamin C save 100 per cent, whereas in those with a poor fitness rating, only 71 per cent survive. This in contrast to the 86 per cent saved with sulfanilamide alone and 25 per cent of the rabbits with poor fitness ratings. This emphasizes the importance of the natural resistance factors and the imperfect action of sulfanilamide when they are inadequate.

Apparently these experimental considerations serve to bring us back to the rather ancient theme dealing with the necessity for the maintenance

TABLE II
Fitness and Ability to Remove, From the Circulating Blood, Pneumococci Invading From an Intradermal Focus

Number of Rabbits Studied	Fitness Rating	Per Cent With a Blood Culture at 26 Hrs., of:			Per Cent of Group Surviving
		< 2	2 to 2000	> 20000	
16	> 0.6	69	31	0	44
19	0.6 to 0.5	37	42	21	11
16	< 0.5	0	7	93	0

The results in Table II differ from those in Table I in that the pneumococci are invading the blood stream from a pre-established intradermal focus, in which case there is no way of knowing accurately their number, as was the case in Table I, where measured numbers were injected directly into the blood stream. Thus rather unlimited numbers are free to gain access to the blood stream if there is nothing to restrain them. So we can expect a smaller percentage of the animals to recover, as indeed is indicated by 44 per cent, 11 per cent, and zero per cent, for the respective fitness groups.

of an effective circulation in pneumonia, which heretofore has been approached all too crudely with heart "whips" of one sort or other. In contrast to this purely symptomatic approach, Locke's studies are more fundamental, and shall we say, more "streamlined"?

Older physicians have often related to me how their cases of pneumonia showed a tendency to water-logging of the tissues—and the alcoholics are very prominent in this connection. They believed they got very effective action from the old mixture of calomel and Squills, known I believe, as the Neimeyer pill. Neither they nor Neimeyer

TABLE III
Comparative Antipneumococcal Effectiveness in the Rabbit of Sulfanilamide and Vitamin C. Singly, and Combined. Intradermal Infection. Type I.

Series	No. of Rabbits	Fitness Rating	% With Neg. Bld. Culture 24 Hrs.	% Survivals	Blood Culture Results After 24 Hours	
					High Fitness Animals	Low Fitness Animals
Vit. C.	12	0.6	33	33	THE COUNT VARIED FROM 2 TO 15 COLONIES PER CC. OF BLOOD	AVERAGE NUMBER OF COLONIES 226 COLONIES PER CC. BLOOD. HIGHEST COUNT 452 COLONIES PER CC.
	12	0.6	0	0		
Sul.	12	0.6	57	86		
	12	0.6	25	25		
Sul and	12	0.6	100	100		
Vit. C.	12	0.6	57	71		

Similar Results With Cortin, Liver Extract, and Vitamin B.

The above Table shows the effect of large doses of vitamin in reinforcing the natural resistance

had the slightest idea of the modus operandi of the treatment, except that it did seem to get rid

of the edema. Really this is another way of saying that it restored the circulation to a more normal balance. In light of Locke's studies it is not unlikely that in such cases these physiological measures were most useful as a stimulative circulatory support and may have saved the lives of many patients, provided of course that their infecting organism was not too high in its virulence. For that is the case where the modern chemotherapy is indispensable.

At one time bacterial vaccines had a definite vogue with certain physicians in the treatment of pneumonia and at a later period, glucose injections came on the scene, and finally the oxygen tent. Now in a last analysis all of these agencies, diverse as they are among themselves, really effected a better oxygenation of the patient's tissues. Oxygen therapy is of course the most direct approach, and glucose which provides a very ready source of oxidation comes next, while the vaccines or other nonspecific protein injection, by inducing circulatory balance by their anti-shocking effect, indirectly bring about increased utilization of oxygen.

With the exception of the vaccine, these various measures including the vitamins, are being used currently in treating pneumonias in children by Dr. McDonald of Boston,⁶ who recently has claimed a considerable reduction in mortality without the use either of specific serum or chemicals. On the other hand, when the latter are employed in the cases to which they are most applicable, mortality is still further reduced and in the usual spectacular manner. The point is that, while the chemical treatment is of primary importance, it may attain that status only when the defense forces of the host are functioning adequately; or in a last analysis, as we have pointed out, the killing of the germ is more an effect of the host than of the drug itself—so much so, that when the former are too deficient, the drug alone may not be able to effect a cure.

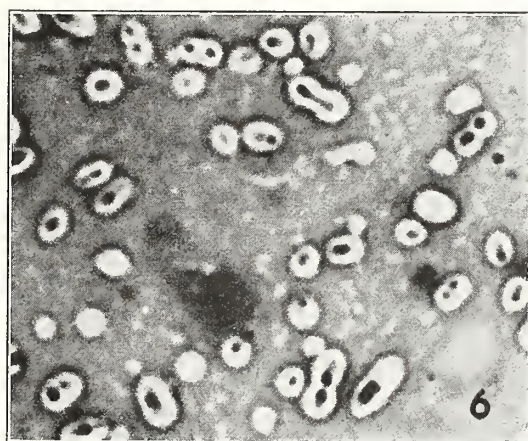
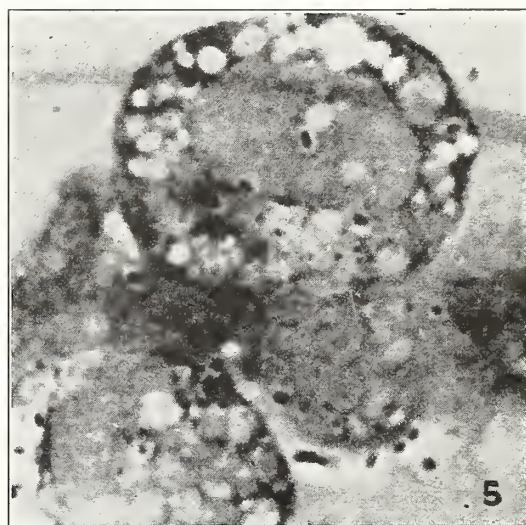
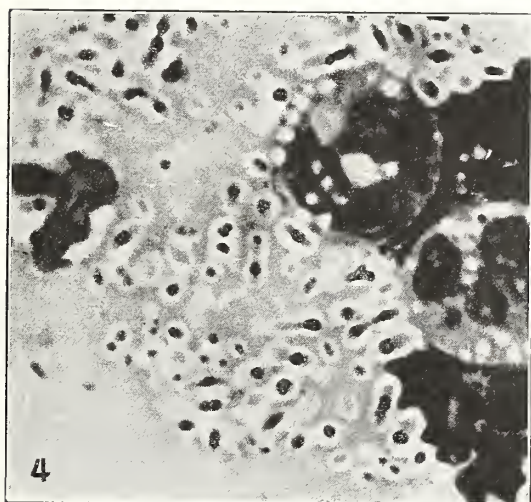
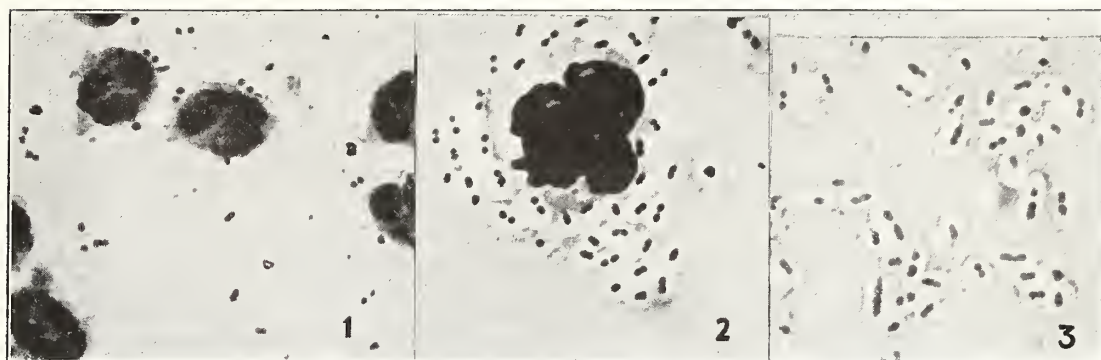
The attention which McDonald has focussed on the importance of natural resistance factors in the treatment of pneumonia in children, we are in position to confirm as a result of a ten-year intensive application of similar measures to general hemolytic streptococcal infection.⁷ These studies were made in pre-sulfanilamide days and resulted in a mortality of only 10 per cent in a series of 125 of the more severe types of hemolytic streptococcal infection. Under other methods known at that time we should have the mortality figures more nearly reversed. As a therapeutic agent we employed very small doses of horse serum which in the beginning was an anti-streptococcal serum, but the effect produced when thoroughly controlled with other nonspecific serums, such as diphtheria serum, was found to be virtually nonspecific. In fact, we finally employed diphtheria serum in many of our cases.

Out of this study came at least one prognostic criterion that was striking in its constancy. It concerned a rather prompt disappearance of the generalized edema, or water-logging of the tissues that is so characteristically present in the more serious of these cases. In certain instances it was so pronounced that it changed the patient's features to an extent that he became scarcely recognizable. Accompanying it of course, was the greatly increased elimination of fluid. In other words, as we realize today, we were not dealing with the effects of a specific serum, but rather the desensitizing, or as we prefer to call it, the anti-shocking effect of the horse serum. It should be remembered in these connections that depending on the sensitivity of the patient, more than on the size of the dose, horse serum injections may result in the shock state, in which event, the effect on the progress of the infection is always deleterious. Whether one obtains a shock effect or an antishock and immunizing effect, depends largely on the size of the dose and the frequency of its administration.

Other rather favorable prognostic signs noted in connection with this therapy were a sense of well-being and a loss of apprehension which were coupled with an increased appetite and tolerance of food. Now, as you well remember, this is exactly what we have already noted in connection with the administration of sulfathiazole in pneumonias and other acute infections. So far as I know, this reaction sounds an important new note in chemotherapy, suggesting as it does that the thiazole nucleus, which has so much in common with the structure of vitamin B₁, is functioning as we might expect B₁ to function if given separately. I refer now to its role in Locke's work which I have already illustrated.

In any case, while Locke is busy subjecting this suggestion to experimental confirmation, we should not think of it as a wholly fantastic advance in chemotherapy. For after all, it is well known that vitamin G or nicotinic acid, corrects certain of the toxic nervous effects of sulfanilamide's action and we have had one case where vitamin E neutralized completely a thiazole-induced amyotrophic lateral sclerosis. Moreover, the vitamin when given with the thiazole quite prevented the development of the spinal cord condition. The thiazoles represented an attempt to combine in **one molecule**, the effect of a double-barreled shotgun—one barrel being directed at the decimation of the parasites, the other at supporting the nutrition and circulation of the host, thus reinforcing its defensive powers. In our study of these severe hemolytic streptococcal infections still another healing manifestation developed that threw light on the way the host normally overcomes infection.

The change involves a conversion of the highly virulent encapsulated phase of the organism to



EXPLANATION OF FIGURES 1-6

Figures 1-6 represent smears of the peritoneal exudate of mice which have been inoculated with highly virulent cultures of pneumococci. The mice were under treatment with sulfapyridine and smears were made at 4-hour intervals following administration of the drug. The purpose was to show the morphologic changes taking place in the germ, with particular reference to their capsules. By employing special media, isolation in cultural media of these several forms was made possible.

a non-encapsulated phase of lesser virulence. The latter grew in smooth colony form, while the more virulent phase grew as a mucoid colony. It is all reminiscent of what we have shown you as occurring under sulfapyridine's influence in pneumococcal peritonitis of the mouse. Of great importance, too, is the fact that this expression of diminished virulence was likely to be asso-

ciated with a localization of the infection, a prognostic sign whose favorable bearing is well recognized. That is to say, when one brings about abscess formation, the bacterium has changed its phase to one where its virulence is lowered.

At this point it is necessary to recall that it is in such situations that sulfanilamide is rather ineffective and which we have explained as being

due in large part to the anaerobic status of the abscess environment. But it should also be mentioned that the non-encapsulated, partially virulent, hemolytic streptococcus is very much more resistant to hydrogen peroxide than the encapsulated phase; so that even though the circumstances be favorable for its formation, it is a question how much the microorganism would yield to its harmful effects.

Nevertheless, there is abundant evidence in the literature that a host of hemolytic streptococcal infections of moderate virulence have been persistently treated with sulfanilamide; and finally, doses so heroic have been given that toxic limits have been exceeded. In Coburn's study,⁸ for example, even in the cases recovering clinically, recurrences were the rule, and the carrier state seemed frequently to follow the therapy. This probably means that for some reason the tissues themselves were unable to make final disposition of the organism rather than that the bacteria had a special resistance to the drug. In fact, Coburn recommends giving sizable doses of sulfanilamide until such time as the natural resistance forces of the tissues—and I have used his words—came to the rescue. Even though he gave no indication of knowing, in terms of Locke's work, what he meant by his use of the phrase, "natural resistance", the import is unmistakable.

The clinical results of our nonspecific serum study referred to above, leaves no reasonable doubt that tissue resistance is thereby stimulated through increased oxygenation. In fact, it is just the type of case treated in Coburn's study—the subacute or recurrent middle ear infection, streptococcus sore throat, streptococcus cellulitis breaking down sooner or later to abscess formation, etc., that this therapy has been most effective. Not infrequently we have seen such cases characterized by frequent recurrences of symptoms, which are often seasonal. Clinically, they always seem to be on the verge of a mastoid invasion, although managing for the most part to keep clear of it; and yet the ear discharge never really cleared up sufficiently to permit the patient to become really normal. These cases were promptly cleared up with a few very small doses of horse serum and the tendency to seasonal recurrence has been quite abolished in some. This example is only intended to be illustrative of one of the many types of cases in which the desensitizing or anti-shock effect of very small doses of horse serum becomes clinically effective.

Whether one views the matter from the standpoint of the drug's mode of action or on clinical grounds alone, there is so sound reason for persisting in the use of increasing doses of the sulfonamide compounds in such cases—particularly when the patient is not responding to them. For as we have shown, as long as the environmental

conditions are such as to interfere with the drug's oxygenation, or when the germ is highly resistant to the hydrogen peroxide indirectly resulting from such oxidation, not only will the germ tolerate all the drug that can be gotten into the tissues without severe injury to them, but a great deal more besides. On the other hand, there is every reason to use minute doses, 0.1 to 0.25 cc. of horse serum, unless the patient is so extremely hypersensitive to it that one elicits a shock effect rather than the desirable anti-shock reaction; or the serum may be combined to advantage with sulfanilamide. I am not sanguine that this use of serum will be adopted, and largely for psychological reasons. To rescue the good features of a practice that once has fallen into disuse for whatever reason, is likely to require an emotional stimulus of some magnitude.

May I recapitulate: First, that it is our present opinion that sulfanilamide is inactive toward highly virulent bacteria until it is partially oxidized to stages whose chemical properties make for inactivation of the germs' enzymes, thereby interfering with their food supply.

Second, an accompanying effect of this starvation process is to permit the accumulation of their own excretory products of which the toxic hydrogen peroxide is one. Thus they may be said to "stew in their own juice."

Third, this effect per se, is chiefly bacteriostatic, but with the aid of the serum and other antibacterial fluids of the body, may become bactericidal for a goodly percentage of the germs.

Fourth, those that escape this killing action adapt themselves as new phases in the culture's life history; but fortunately for the host, his leucocytes put the coup-de-grace on these.

Fifth, if the leucocytes and other natural resistance forces of the host are deficient, they should be reinforced with appropriate physiologic measures—with the aim of increasing the host's own oxidative powers. Otherwise, those phases of the germ that escaped the drug's action may remain dormant in the tissues, which then have the status of carriers; or they may regain a portion of their virulence and multiply sufficiently for the condition to become subacute or chronic; or they may even regain their original virulence, in which event a full-blown recurrence of the disease will take place.

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The Influence of Overcrowding on the Incidence of Pneumonia

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S LUM clearance projects and the laudable agitation for model homes for families subsisting on modest incomes, have made great headway in recent years. This is largely due to information gathered by housing authorities, showing that overcrowding and unsanitary living conditions go hand in hand with high incidence of illness, crime, mental disease and even suicides. Of course, poor living conditions are usually only one of several contributing factors; others, such as inadequate income, improper and insufficient food, and meager educational background are equally as important.

Frequent efforts have been made to show a direct, irrefutable relationship between a particular disease and overcrowding in dwellings, but no reliable account of this kind has appeared in publication. This fact speaks well for the meticulous honesty of these investigators, since it is definitely established that more than one factor is involved in the causation of any disease.

The factors responsible for the production of disease, especially infectious disease, must be considered from three important angles.

(a) Predisposing causes—which include among others, age, sex, habits, season, heredity, hygiene, climate, other diseases, and housing.

(b) Exciting causes—heat, cold, trauma, worry.

(c) Specific causes—micro-organisms, viruses, toxins, etc.

It is likely that these three factors, acting together, set the stage, necessary for the contraction of the disease.

It is now definitely known that each case of pneumococcic pneumonia is due to one of 32 specific types and that a person in direct contact with a pneumonia patient is liable to contract an homologous infection.¹ However, not every contact contracts the infection, although the germ may subsequently be harbored for a long time.

That pneumonia is contagious has been a generally accepted fact by the medical profession for many years. There is some doubt as to just how contagious it is, or how the disease is disseminated, but as a respiratory infection it has been more or less assumed to spread by the "droplet" or "spray" methods. It has seldom been a reportable disease, nor is there as yet any general appreciation of the necessity of adopting measures for the protection of contacts, commonly enforced in the case of other contagious

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diseases. Text books have always mentioned the fact that pneumonia is encountered in epidemic proportions where people live under crowded conditions, especially in prisons and barracks. An outbreak of this nature was previously reported¹ of type I pneumonia occurring on two different occasions, in dormitories housing transients in Cincinnati.

This being true, it would be logical to expect the disease to concentrate in the congested districts of our large cities, where tenement houses exist and tenants live under crowded conditions. In this report, an attempt is made to show that this relationship is more than casual. Since pneumonia is not a reportable disease, one cannot obtain reliable morbidity data for the city of Cincinnati. The Cincinnati General Hospital, however, receives a majority of the pneumonia patients afflicted in any given period, computed according to four patients affected for every death reported.* Since the number of patients with pneumococcic infection received at the Cincinnati General Hospital in any year is quite high, averaging around 400 cases, the conditions under which these individuals lived have received particular study.

*Approximately 347 deaths from pneumonia every year for Cincinnati.

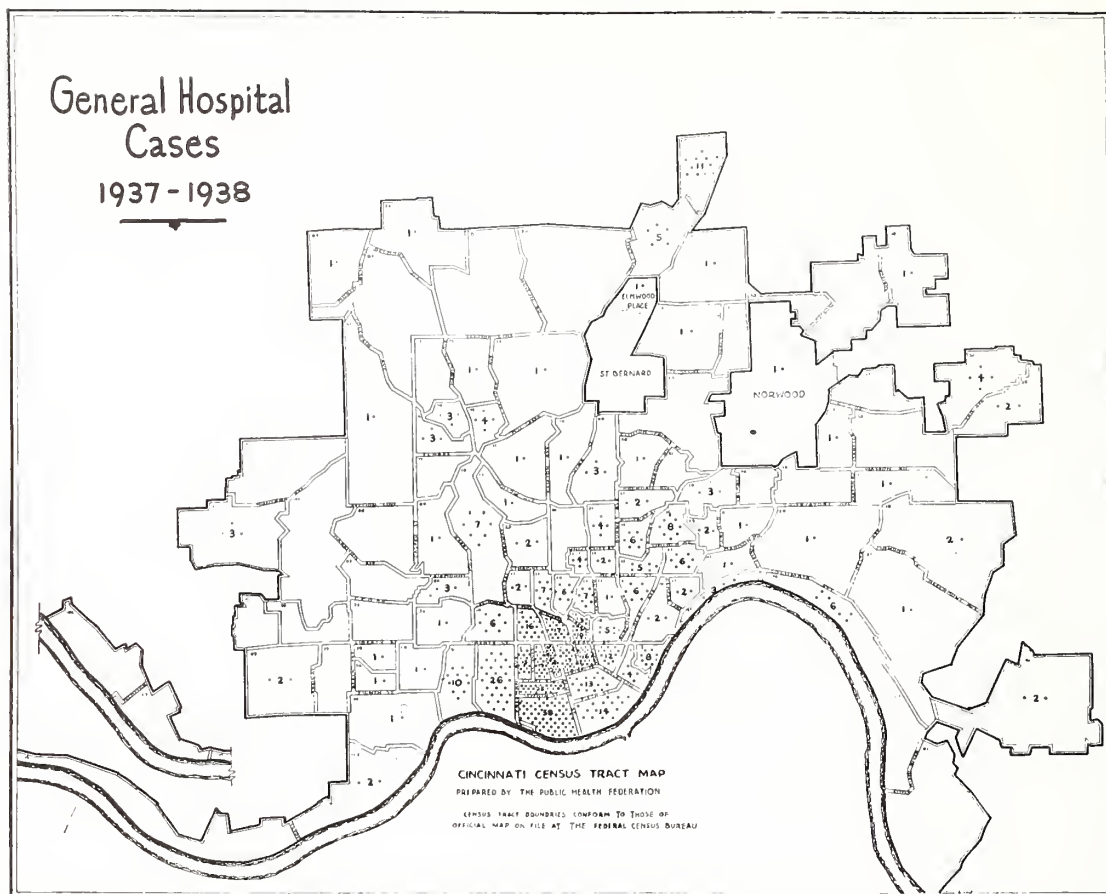


Plate 1. Each dot represents one case of pneumonia. The numerals signify the number of pneumonia cases in each census tract, treated at the General Hospital in 1937-1938.

During the three years, 1935-1938** the residence of each patient suffering with pneumococcal infection, treated at the Cincinnati General Hospital was noted on spot maps. A "dot" representing each case appears in the census tract*** where the patient resided when infected. (Plate 1)* Similar notations have been made of the patients treated in the seven largest private hospitals** of the city, during the year 1937-8, where 205 patients were received. (Plate 2) It will be readily appreciated by comparing these maps, that while the numbers are comparable, still the massing of cases chargeable to the Cincinnati General Hospital is in no wise affected by superimposing one map on the other for that particular year. (Plate 3) The concentration is unmistakable. Moreover, it has been interesting

to observe how the maps for each of the three years conform to the same distributional pattern. The darkly shaded areas comprising many "dots" are those where the city's greatest problem of overcrowding exists. Here also, tenements appear in great numbers.

"Overcrowding" in homes, defined in the National Health Survey² of 1935-1936 as "dangerous", was the condition which existed when there was an average of two or more persons per room. In that survey of housing, the sampling for Cincinnati covered 12,549 households, so selected as to represent a cross section of the community. It was disclosed that the number of households for the city, having two or more persons per room was 8.8 per cent, and it was substantially higher for the negro than for the white population. For the combined cities studied in the National Health Survey it was 3.8 per cent.

A more critical survey of five census tracts in the "West End" or congested part of the city and from which so many pneumonia patients came, revealed approximately 15 per cent of the families to be living with two or more persons per room. The report of the Housing Bureau of the Building Department of Cincinnati has

**The years include—July 1, 1935 to July 1, 1936 July 1, 1936 to July 1, 1937; July 1, 1937 to July 1, 1938.

***Census tracts are subdivisions of the city with fixed boundaries, established for the purpose of enumerating the population in small units, from which related medical, social and economic information can be gathered.

*This map is for the year 1937-38. Spot maps for the years 1935-36, and 1936-37, are not published in this paper. The massing of cases is essentially the same.

**Good Samaritan Hospital; The Christ Hospital; The Jewish Hospital; Holmes Hospital; Bethesda Hospital; Deaconess Hospital; and The Childrens Hospital.

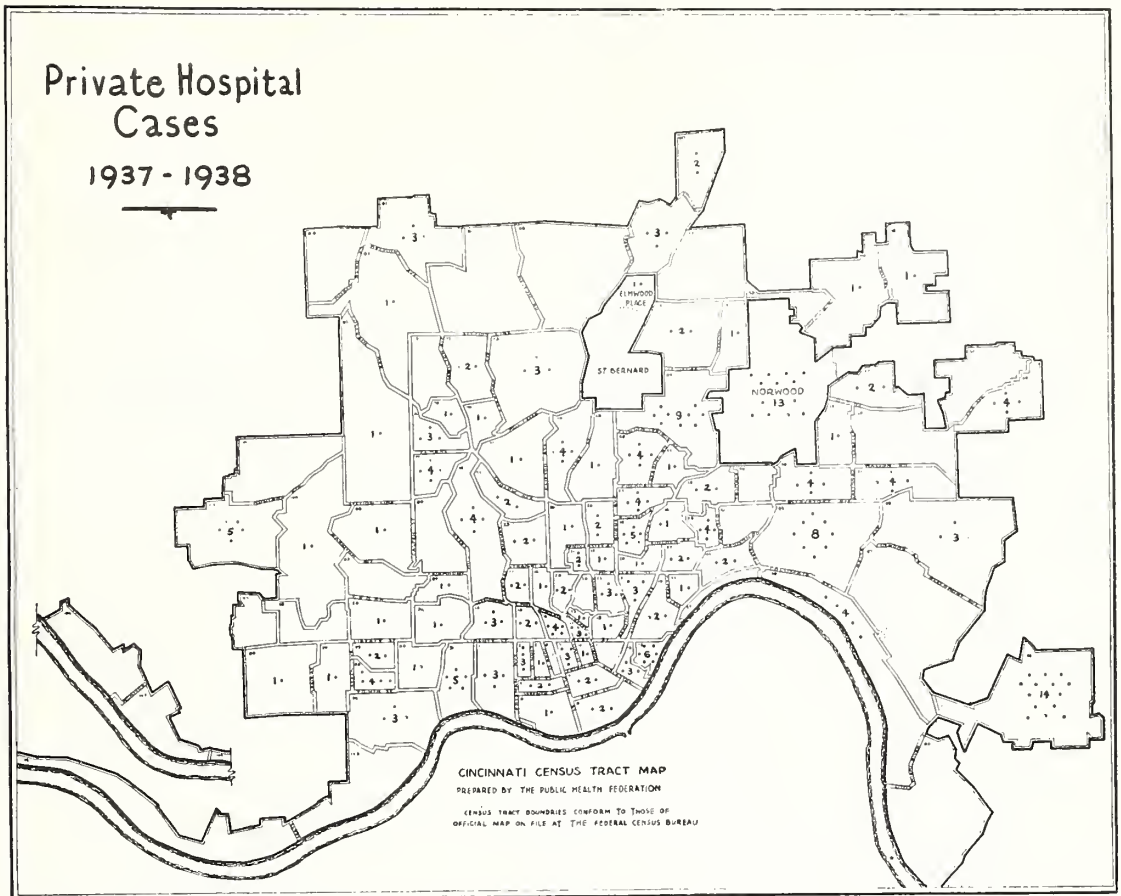


Plate 2. Each dot represents one case of pneumonia. The numerals signify the number of pneumonia cases in each census tract, treated in private hospitals in 1937-1938.

shown that 50 per cent of the family housing units in this area consists of two rooms or less. Compared with most other cities of major size, Cincinnati rates rather unfavorably in respect to room overcrowding.

It must be appreciated that, from the 107 census tracts comprising the entire city, 1,283 patients with pneumococcus infection were treated at the Cincinnati General Hospital during the period July 1, 1935, to July 1, 1938. However, 17 tracts accounted for 821 of these admissions. In other words 25 per cent of the total population (the heavily dotted areas on the map) was responsible for 65 per cent of the patients with the disease who were treated at the General Hospital. The remaining 75 per cent of the city population accounted for only 35 per cent of the cases. It should be mentioned that of Cincinnati's 55,765 Negroes in 1935 (11.8 per cent of the total population), 83 per cent live in the heavily dotted areas. The number of Negro patients admitted with pneumonia was almost the same as whites, which indicates a high morbidity from pneumonia in the colored race. There are a few scattered census tracts outside of the heavily

dotted area under consideration, with a considerable Negro population, where the pneumonias were not concentrated in any materially larger proportion than for the city at large. Some of these families were on a slightly higher economic scale than obtained for the total Negro population. Overcrowded living conditions, however, was not the great factor as is true of the area previously referred to. By far the great majority of sick Negroes from the entire city were treated at the General Hospital.

The same condition exists with regard to white families. There are other tracts in the city housing very poor people, many on relief, but they are not so badly over-crowded and the pneumonias were no more prevalent there than in most other parts of the city.

So much for the incidence of morbidity. It is of interest to consider briefly, pneumonia mortality for the city at large. Mortality is always a more tangible subject, for even though the possible error in diagnosis on the death certificate must be taken into consideration, we have at hand in most areas, a fairly accurate estimate of the causes of death. Unfortunately, the pneumonias

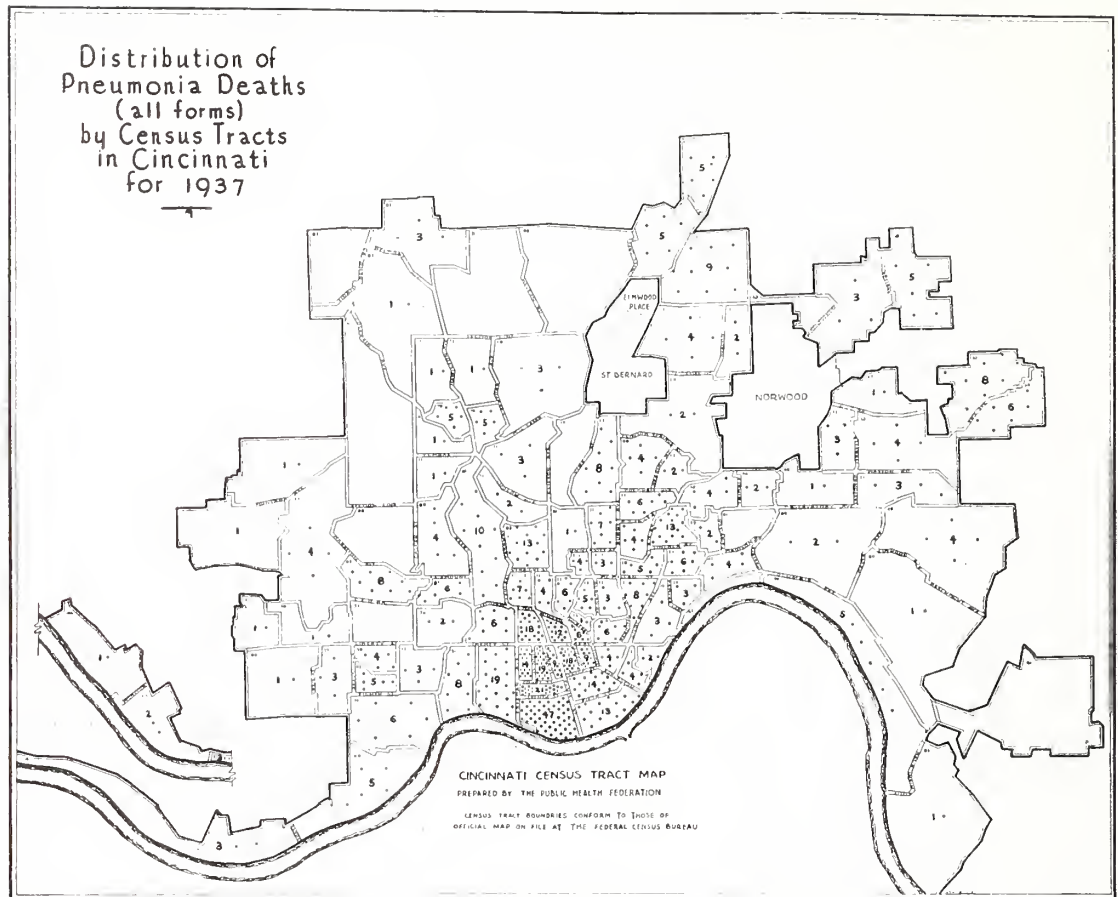


Plate 3. Each dot represents one case of pneumonia. The numerals signify the number of pneumonia cases in each census tract, treated in the General and private hospitals in 1937-1938.

are not always differentiated as to lobar or bronchi pathology, therefore the following speculations must necessarily be all inclusive, and are presented with the idea of showing a decided trend rather than any positive conclusion.

It is noteworthy that the mortality rate for the city follows quite closely the morbidity rate for the General Hospital according to census tracts. For the period 1936-1937, morbidity and mortality statistics bear out practically identical relationships, with a few exceptions (Plate 4). In these few tracts a large number of deaths from pneumonia is reported of patients apparently treated at home, as they did not appear on any of the hospital records.

Proceeding farther in this relationship, it is of interest to note that pneumonia mortality is correspondingly high in other large cities studied, where overcrowding is appreciable. Quite naturally, overcrowding again is only one factor in the congested districts. The economic status is, generally speaking, not high and the plane of living not very creditable.

A most interesting and convincing correlation was made for us by Mr. William H. Groom,

president of the Public Health Federation of Cincinnati, showing how closely, in most instances, pneumonia mortality statistics and overcrowding in 19 of the large cities seem to parallel each other. He took three sets of figures for each of these cities, and reduced them to a single "common denominator" representing the comparative degree of overcrowding (Table 1). He then secured the number of deaths in each of these cities in 1935 for pneumonia, taken from the U. S. Mortality Statistics which is published annually by the U. S. Census Bureau, and worked out an approximate crude pneumonia death rate by using population estimates for the year 1935, based upon the 1930 census and the U. S. Census Bureau's estimate for 1933. This is shown in Table 2.

In these two tables the 19 cities have been arranged, in Table 2, with the lowest pneumonia death rate at the top and the highest at the bottom of the list, and in the overcrowding Table 1, the city with the smallest degree of overcrowding at the top and the highest degree of overcrowding at the bottom.

Now considering Table 3—the relative position

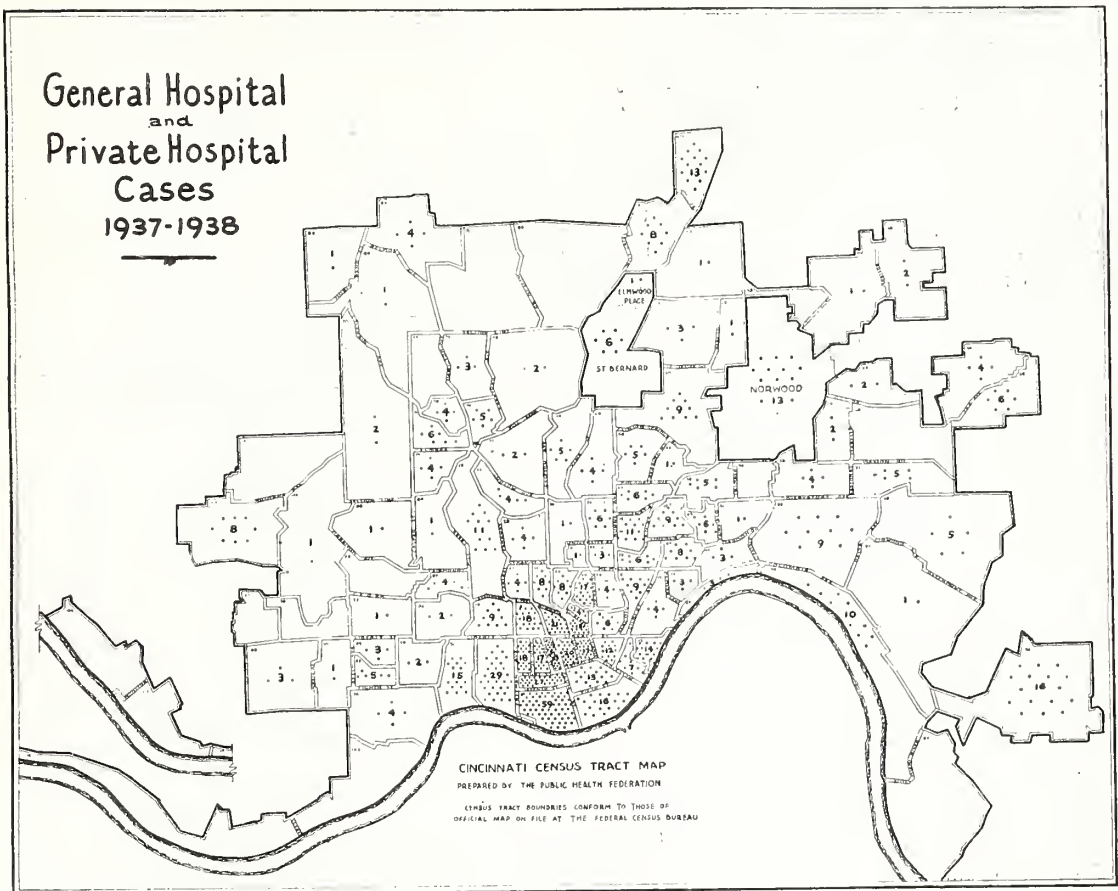


Plate 4. Each dot represents one pneumonia death. The numerals signify the number of pneumonia deaths for Cincinnati, in each census tract, 1937.

TABLE 1
(Pneumonia Studies)
Overcrowding—1935*
Persons per Room

City	More than one	More than 1½	Two or more	Consolidated %**
1. Buffalo	8.4	1.6	0.5	11.8
2. Seattle	7.4	2.6	2.0	15.3
3. Columbus, O.	9.2	3.1	1.9	17.7
4. Cleveland	12.5	2.8	1.2	19.1
5. Boston	14.2	3.8	1.9	23.7
6. Detroit	12.7	3.3	1.8	21.3
7. New York	20.6	4.4	1.6	30.4
8. Chicago	16.9	5.4	3.8	32.6
9. Minneapolis	14.4	6.3	4.9	33.7
10. Newark, N. J.	21.2	6.5	3.0	37.0
11. Richmond, Va.	17.8	7.3	4.5	37.8
12. Houston	18.7	8.6	5.9	43.4
13. St. Louis	24.8	10.9	6.9	45.6
14. Pittsburgh	23.9	9.3	5.5	48.9
15. Birmingham	22.3	10.0	7.0	51.3
16. Dallas	22.1	10.8	8.1	54.5
17. Cincinnati***	25.3	12.1	8.8	61.3
18. New Orleans	27.9	13.2	9.1	65.9
19. Atlanta	30.0	17.1	13.2	82.1
Average for 19 cities				38.6

*National Health Survey, U. S. Public Health Service, 1935-36. (740,000 Urban Households—83 Cities).

**Formula employed to obtain a consolidated factor representing the comparative degree of overcrowding: 1 times the % figure for families housed more than one person to a room, plus 1½ times the % figure for families housed more than 1½ persons to a room, plus 2 times the % figure for families housed two or more persons to a room.

***12,549 Households—cross section.

of the 19 cities with reference to overcrowding is placed opposite their respective position in the pneumonia death rate table. It will be seen that there appears to be a striking correlation in many instances with only questionable relationship in others. In an endeavor to determine whether this correlation is actual or only apparent, Professor Thomas J. LeBlanc of the department of Preventive Medicine, College of Medicine, University of Cincinnati, has constructed a correlation table (Table 4) which adequately expresses this relationship. His explanation is as follows:

"From the relative position of cities arrayed on the basis of their respective consolidated crowding indices, it may be inferred that there is a positive relation between degree of crowding and deaths from pneumonia, or to phrase it another way, the force of mortality from pneumonia seems not to be independent of crowding. To exhibit this relationship, a correlation table was constructed on the basis of the two above mentioned variables. The use of the correlation method may be objected to on the grounds that a rate on the one hand, and an index on the other, comprise the two rubrics of the zero order table and that these would give rise to spurious correlation. This may be admitted, but inspection of the table indicated such an obvious positive association that it was thought advisable to give

some sort of quantitative expression, and the number of entries available did not justify the use of the method of partial correlation in order to eliminate rates and indices. Accordingly the zero order table, using all entries was cal-

TABLE 2
Deaths from the Pneumonias
1935

Crude death rates for selected large cities based on total deaths, white and colored, all ages; and population estimates for 1935, derived from U. S. Census Bureau population estimates. Cities arranged in ascending order of death rate, with the lowest rate at the top, and the highest rate at the bottom of the list.

U. S. Mortality Statistics				
City	Bureau of Census Pop. Estimate July 1, 1933	Deaths from Lobar Pneumonia	Total Deaths from the Pneumonias	Crude Death Rate from the Pneumonias per 100,000 population
1. Chicago, Ill.	3,490,700	1471	2416	67.8
2. Seattle, Wash.	374,100	146	290	76.3
3. Newark, N. J.	447,000	235	351	78.0
4. Houston, Texas	317,900	163	268	80.0
5. New York, N. Y.	7,154,300	3398	6096	83.6
6. Columbus, Ohio	299,700	117	260	85.0
7. Detroit, Mich.	1,666,100	1065	1471	85.2
8. Buffalo, N. Y.	584,400	300	512	86.5
9. Minneapolis, Minn.	477,700	205	428	88.0
10. Cleveland, Ohio	918,400	384	907	96.5
11. Birmingham, Ala.	273,300	197	276	97.1
12. Dallas, Texas	278,000	218	310	107.0
13. St. Louis, Mo.	830,300	626	957	113.9
14. Richmond, Va.	184,900	109	219	117.9
15. New Orleans, La.	471,000	215	574	119.8
16. Cincinnati, Ohio	460,100	348	600	129.0
17. Atlanta, Ga.	280,400	288	382	133.0
18. Boston, Mass.	786,900	503	1121	141.9
19. Pittsburgh, Pa.	678,500	775	1107	160.5
Average for 19 cities				102.5

culated and this gave a correlation coefficient of $+ .47 \pm .121$. It is evident that while the coefficient is positive in sign, it is neither high nor significant with reference to its own probable error. Inspection of the original table makes evident the reason for the outcome. The general trend of all but two of the entries is positive and shows only an average divergence from rather close regression. There are two entries, however, which are markedly aberrant, namely Boston and Pittsburgh. These have crude death rates from pneumonia so high that if these two cities followed the general regression of the table, their respective consolidated crowding indices would be of the order of 100 to 150. Instead Boston's index falls in the 20 to 29 group, while Pittsburgh's comes in the 40 to 49. Of course the table exhibits no evidence to explain the divergence of these two cities, and any explanation offered would be in the nature of speculation, without further study and the accumulation of additional and more specific data. Avenues which might be productive are the suggestions that Pittsburgh's high rate may be caused by the predominance of iron and steel industries with their attendant hazard of excessive temperature ranges; and that Boston's rate may be explained on the basis of a colored fraction of the population exposed to living in a latitude not favorable to their resisting the impact of diseases of the upper respiratory system.

"Since these two cities represented an obvious

divergence from the general trend a second correlation table was constructed eliminating them from consideration (Table 5). This table gave a correlation coefficient of $+ .74 \pm .074$. Here it is seen that the correlation coefficient has increased until it is not only very high but its probable error has decreased so that the coefficient is now markedly significant statistically. This might be interpreted as a statistical hint

TABLE 3
(Pneumonia Studies)
Pneumonia and Overcrowding

City	Position in Overcrowding Table	Position in Pneumonia Death Rate Table
Seattle	2	2
Minneapolis	9	9
St. Louis	13	13
Cincinnati	17	16
New York	7	5
Atlanta	19	17
Detroit	5	7
Richmond, Va.	11	14
Columbus, O.	3	6
New Orleans	18	15
Birmingham	15	11
Dallas	16	12
Pittsburgh	14	19
Cleveland	4	10
Newark, N. J.	10	3
Chicago	8	1
Buffalo	1	8
Houston	12	4
Boston	6	18

that the two cities in question were so different from the other cities in respect to the relation between crowding and deaths from pneumonia that they fall in a class which is separate and distinct from a class made up of the remaining 17 cities. This evidence might also be accepted as a suggestion that these two cities should be the subject of separate and intense studies in an effort to find an explanation for their apparent excess of deaths from pneumonia.

"If one accepts the premise that Boston and Pittsburgh constitute a separate problem and

TABLE 4
Crude Death Rate—Pneumonia—Per 100,000 (19 Cities)

Consolidated Crowding Index	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	160-169	Total
	69	79	89	99	109	119	129	139	149	159		
10-19			1	2	1							4
20-29				1					1*			2
30-39	1	1	2			1						5
40-49			1			1				1§		3
50-59				1	1							2
60-69						1	1					2
70-79												0
80-								1				1
Total	1	2	6	2	1	3	1	1	1	0	1	19

*Boston
§Pittsburg

that their relationships between crowding and deaths from pneumonia are distinctly different from the other cities considered in this study, and if one accepts the method applied, then for the 17 remaining cities (Table 5), there appears to be a positive relationship or association between crowding as measured by the consolidated crowding index, and deaths from pneumonia as indicated by the crude death rate from pneumonia, and this relationship is relatively high,

and with reference to its own probable error, is certainly significant statistically."

DISCUSSION

Smillie,³ in following up contacts living under congested conditions, was unable to relate any one specific type to overcrowding. However, it would seem that this factor is an important predisposing cause of the pneumonias in general. While other vital social causes coexist in these areas, overcrowding is at least one common denominator.

Recently Federal Housing projects have relieved, to a certain extent, the poor housing

TABLE 5

Consolidated Crowding Index	Crude Death Rate—Pneumonia—Per 100,000 (19 Cities)										Total
	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139			
10-19		1	2	1							4
20-29				1							1
30-39	1	1	2			1					5
40-49			1			1					2
50-59				1	1						2
60-69						1	1				2
70-79											0
80-								1			1
Total	1	2	6	2	1	3	1	1			17

conditions in the tracts where overcrowding exists at its worst. It will be of the greatest interest to compare spot maps of future years with those reported herewith.

In a previous paper,¹ several cases of cross infection were cited in an effort to direct attention to the contagious nature of the disease. With this in mind it is apparent that the disease will spread more easily under conditions which force people into closer contact with each other. We have frequently noted the same addresses given by various pneumonia patients, and as reported, members of the same household have not been infrequent. If physicians and health officers were to give more serious attention to this aspect of the subject, certainly much good could be accomplished. The prompt reporting of pneumonia cases and the possible segregation of proved carriers should be considered.

Some observers who have been interested in the present pneumonia problem, are now engrossed in the study of immunization and its promising aspects. Both Felton and Smillie have indicated results suggesting further work with protective vaccines. Felton's experiment⁴ included only very young males (80 per cent under 25 years of age) living under controlled environment in C.C.C. camps and therefore more or less handpicked. Smillie's efforts^{5,6} were directed toward the protection of other hospital inmates in two different epidemics, one at the State Hospital at Worcester, Mass., and another at the Veteran's Administration Hospital at Bedford, Mass. They have both indicated fairly con-

clusively, that immunity is created by the subcutaneous injection of a vaccine, or antigen preparation, of an antigenically active polysaccharide of the specific pneumococcus.

No effort of this kind has been made where there is practically a known number of people of all ages, colored and white, living under adverse conditions. The possibility of attempting immunization of as many people as possible in overcrowded areas would seem an important and very interesting problem for consideration. The vaccination of the residents of certain census tracts in Cincinnati offers unusual opportunities for the appraisal of immunization efficiency. In this way the population of unprotected areas in the same vicinity could be compared with those "protected" by immunization.

CONCLUSION

1. From the 107 census tracts composing the population of the city of Cincinnati, the General Hospital treated 343 patients with pneumococcus infection in 1935-6, 437 in 1936-7, and 503 in 1937-8.

2. Residents of 17 tracts, representing 25 per cent of the total population of the city, accounted for 65 per cent (821) of these patients.

3. These tracts represent the area of the city where overcrowded living conditions are greatest.

4. Overcrowding is considered an important factor, as a contributing cause of the pneumonias.

5. A correlation table is presented showing relations between overcrowding and the pneumonia death rate in 19 large cities.

6. The contagious nature of the pneumonias is stressed, and its importance from the public health point of view.

7. Pneumonia should be made a reportable disease.

8. Protective vaccination of the population of selected census tract areas, is suggested as an important experiment.

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The X-ray examination of recruits in Australia is to be extended to the permanent military forces. Every member of the forces will be re-radiographed on his return from abroad. The incidence of active pulmonary tuberculosis was 0.55 per cent among the 9,000 men examined.—Eric Coope, M.D., *British Med Jour.*, Aug. 24, 1940.

Treatment of Disorders of the Thyroid

R. A. RAMSEY, M.D.

THIS paper will endeavor to present salient facts about the treatment of thyroid disorders in the time allotted, appreciating that many desirable points must necessarily be omitted. Personal examination and observations have been carried out in over 22,000 cases, seen in hospitals, dispensaries and private practice. These cases have been treated by medicine, X-ray and surgery.

The most common thyroid disorder encountered in general practice is simple nontoxic goiter. The ideal form of treatment should be prevention. A discussion of this quite obviously involves etiology. The theories have been numerous, since the time of Hippocrates, who spoke of "big neck wells". Of these theories, the two most common are the infection and iodine deficiency. The chief proponents of the former theory are McCarrison and Crotti. The latter's research in the discovery of a fungus in water and cabbage which, when injected into animals produces goiter with recovery of that organism from the animal's thyroid, has been a forward contribution. Marine and Kimball have been the chief American advocates of the iodine deficiency theory and their research has been quite outstanding in the matter of prevention. To utilize the research of all of these men in prevention of endemic goiter is our province.

Let us consider the following: (1) improve general nutrition and hygienic conditions; (2) remove all foci of infection, especially those about the mouth, such as abscessed teeth and tonsils; (3) avoid water and foods such as cabbage which may be infected with the goiter fungus or sterilize before using; (4) give iodine in some form routinely. Sodium iodide is commonly given and each grain represents approximately four-fifths grain of iodine. One-fifth grain or less of sodium iodide weekly will suffice in most cases. Chocolate tablets containing one-sixth grain iodine in organic form have been quite popular. Iodized table salt contains 0.023 per cent sodium iodide. Kimball has observed that much smaller doses of iodine may bring about results and recommends 0.01 per cent sodium iodide in salt or one part in 10,000. It has the disadvantage of lack of control of the amount being given to many who either do not need iodine or may be harmed by its use. These disadvantages have been discounted by the advocates of iodized salt, hence the widespread use.

Read before the Second General Session, Ohio State Medical Association, at the Ninety-Fourth Annual Meeting, Cincinnati, Ohio, May 14-16, 1940.

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Preventive measures are best carried out; first, in pregnant women especially in goiter districts, by giving of small doses of iodine and thus preventing congenital goiter; secondly, treat the children five to twelve years of age and even up to 18 years, because of the undue strain in adolescence.

MEDICAL TREATMENT OF SIMPLE GOITER IN CHILDREN

In this treatment we refer to the small diffuse parenchymatous symmetrical glands without nodules. The same general routine as indicated above for prevention should be carried out here. Iodine should be used in somewhat larger doses than in prevention, namely one of the chocolate iodine tablets daily or sodium iodide saturated solution, three drops weekly. If there is an associated hypothyroidism, then administer desiccated thyroid as will later be considered.

When these goiters have become asymmetrical, namely, one lobe much larger than the other and are of the diffuse colloid type, then they may be reduced in size, but complete cure is rare. If the goiter is of the discrete nodular type one may reduce the goiter as a whole but the nodules remain.

Treatment during and after adolescence should be much the same as in young children, except one must be guarded about symptoms of toxicity. The response is not so marked as in young children. Pregnancy goiters are common and usually of simple type and should be treated in the same manner, appreciating, because of the great incidence of hypothyroidism, the need of thyroid extract in many cases.

HYPOTHYROIDISM IN CHILDREN

There has been much controversy over the classification of hypothyroidism in children. In our discussion of this subject, both in children and adults, we shall refer to treatment in cases

not complicated by polyglandular syndrome. In seeking to avoid confusion, I should like to offer for purpose of treatment the following classification: (1) endemic cretinism; (2) cretinoid states; (3) simple hypothyroidism. There has been much discussion over the term endemic cretinism which is found quite commonly in Europe. In the main, these cases are comparatively rare in the United States and especially in our own state. Treatment of cretinism as early as discovered will result in considerable benefit as to increased intelligence, growth and improved skeletal state, but they usually show residual stigmata. The dosage of thyroid will be according to the age, in the first year, one-tenth to one-fourth grain daily increasing as the age increases up to one or two grains. Many of these cases tolerate thyroid quite poorly and are most uncomfortable from rapid heart. The so-called cretinoids are greater in number and show fewer stigmata than the true endemic cretin. These may be improved in a most astonishing manner, but even they may still carry some of the external evidence when their intelligence has reached an almost normal level.

The condition of simple hypothyroidism in children is a very common one which may be seen almost daily in general practice. This is especially true in so-called goiter areas and goiter of some degree usually accompanies it. Fatigue in many diseases is the most common symptom encountered in general practice and even though this condition is not always appreciated by the child himself, it is usually the most common symptom in hypothyroidism. Mild and more serious behavior problems, nervousness, eye muscle imbalance, skin conditions, especially some forms of eczema and ichthyosis, menorrhagia, gastro-intestinal disturbances, etc., all are too common in this condition to be discounted. Hypothyroidism may be divided into obese and thin types.

The obese type is not necessarily complicated with other glands and in the treatment of these cases, moderate exercise is recommended, but not too strenuous, since too much burden will be thrown upon the gland and so reduce its activity. Diet lowered in calories is essential. Desiccated thyroid is to be given, beginning with one-fourth grain daily and increasing up to one grain. This may be sufficient in even the most severe cases. We have rarely seen it necessary to increase above two grains daily.

In the thin type which must be considered definitely hypothyroid, if symptoms and signs are to be used as criteria, rather than too much dependence upon the metabolism rate, the dosage of thyroid should be still smaller, starting with one-tenth or one-fifth of a grain a day. The total number of calories should be definitely increased and more rest obtained. Risking the

charge of empiricism we have found calcium in some form distinctly beneficial in the fatigue type of nervousness which accompanies especially the thin and sometimes the obese type of hypothyroidism in children.

HYPOTHYROIDISM IN ADULTS

This may be considered in two types, that with myxedema and that without. Cases of myxedema respond well to thyroid extract and certainly medicine may point with pride to the amazing results accomplished in these cases. Some demand large doses up to four or five grains a day, but in the main our experience has shown that one to three grains will be adequate. A warning should be given to begin with small doses and increase cautiously, especially in those patients with severe myxedema and so-called myxedema heart with its definite dilation. This is also true in those cases with high blood pressure, appreciating that the sudden increase of metabolism naturally throws a heavier burden on the heart muscle. Anemia is the rule, hence iron is valuable.

Hypothyroidism without myxedema often occurs in those who are more or less normal or below normal in weight and in these cases smaller dosage should be considered, increasing the amount of vitamin, especially B₁ and calcium. Rest is more important in these cases.

The make of thyroid used in hypothyroidism will be according to the physician's own preference. It is more important to have a product which is fresh, standardized according to U.S.P. method and, in our judgment, preferably enteric coated, since gastric digestion apparently destroys some of the effect, thus requiring larger dosage. In old preparations, bacterial change has been definitely shown to reduce markedly the effectiveness. Small doses of iodine are desirable along with thyroid.

Patients may become refractory to desiccated thyroid after several weeks or months of treatment. It is well, therefore, to omit dosage one or two weeks out of each two or three months. Many refractory cases, however, will require the use of thyroxine which will often be beneficial when desiccated thyroid has failed. Thyroxine is sold in tablets in the form of the sodium salt. Pure thyroxine itself is not soluble in water. Ampules of the disodium salt in aqueous solution are available which are to be given intravenously. These ampules contain one milligram.

The amount of thyroid medication must be increased in cold weather. The sub-zero temperature of last winter caused the return of many patients, who forgetting these facts, had a recurrence of their symptoms. A word must be said regarding the general effectiveness of thyroid medication, since this substitution method is not at all ideal. If the thyrotropic hormone of

the pituitary now available commercially could stimulate the thyroid gland to continuance of normal production, this would be ideal. We have used this substance in quite a number of cases and it seemed to be effectual in about 40 per cent. It has had the advantage in some of making the patient more susceptible to thyroid extract when this is resumed.

CRITERIA IN THE PROGRESS OF HYPOTHYROID CASES

These are first, clinical, in which we find a definite reduction of the symptoms as, smoother skin, lessened weight, better nails, less fatigue, reduced puffiness of the upper eyelids in mild and disappearance of the myxedema in severe cases, elimination of definite pains in the muscles and occipital headaches. Temperature, which is often subnormal, becomes normal, pulse rate rises and many times the pulse pressure increases. Needless to say undue tachycardia, tremor and precordial activity should cause one to stop treatment at least temporarily.

Laboratory criteria indicated are first, metabolism rate. On the whole this procedure must be considered a most valuable guide, especially in a relative way. It is imperative, however, to appreciate that it is not infallible. It must be correlated with the symptoms. We have seen many toxic goiters with metabolism rates below zero and a large number of hypothyroid cases with normal metabolism rates. Blood cholesterol which is often high is reduced by thyroid. Urine should be watched for appearance of sugar.

MALIGNANCY

The increasing incidence of cancer as a whole causes us to be more particular about thyroid examination than ever before. Pemberton in his studies of cases at Mayo Clinic found that the percentage of malignant tumors to benign tumors had increased from 2 in 1919 to 4.9 in 1937. Crotti, in a statistical study of 26,974 found 0.93 per cent malignant. He states that 91.7 per cent of malignancies develop in pre-existing goiters. The management of thyroid malignancies as previously stated regarding goiter is best carried out by prevention. Nodular goiters are essentially surgical, regardless of the degree of thyrotoxicosis or of symptoms. Patients with such goiters should be definitely told that they cannot be cured by medical means and if they are in the fourth decade or after there is potential danger of malignancy. This is especially true if rather rapid increase in size occurs or tenderness is noted. The treatment of malignancy should be: (1) radical, namely, as complete surgery as possible; (2) implantation of radium in that portion of the gland which cannot be removed; (3) adequate X-ray treatment. Opinions differ as to the use of radium, some preferring

only deep X-ray therapy. The prognosis in malignancy, when taken early and using radical surgery with proper radiation, has been steadily improving in the last decade, and the percentage of cures is now high.

THYROTOXICOSIS

Under this heading may be classified, (1) thyrotoxicosis without goiter; (2) primary toxic goiter, namely, the hyperplastic or parenchymatous type; (3) secondary toxic goiter such as occurs in large diffuse colloid, nodular and cystic glands. In the first two groups, i.e. the cases of thyrotoxicosis without goiter and those of the mild type, small vascular or non-vascular glands, viz., those with or without bruit over the lobes or its arteries, often respond in a satisfactory manner to medical treatment. While no arbitrary rule can be laid down for mild cases the following points may be considered: slight loss of weight, mild palpitation, heart rate under 100, pulse pressure 40 to 60, thyroid gland of moderate size, slight eye signs, little or no tremor and a metabolism rate under plus 30. Treatment may be divided into rest, diet, medication and radiation.

Many men are inclined to permit mild cases to continue their duties, but successful management demands rest in bed 12 to 16 hours daily, freedom from work and, if possible, elimination of all mental worries. If the weather is hot the temperature of the room should be kept at 75° or less. Many cases, mild in winter, become severely toxic in the summer. They should seek a cool climate when possible.

The diet should be highly nutritious and contain an increased number of calories over the amount needed for an individual of the same weight and age. A toxic goiter may be likened to a furnace with the draft open. It is necessary to have more fuel. Increased metabolism rate tends to produce more acid products, so that the diet should be to the alkaline side, using fluids freely, adequate amounts of milk and fruit juices, and meats sparingly. The presence of traces of sugar in the urine, if there is no frank diabetes, need not cause curtailment of carbohydrates.

Iodine is the drug, par excellence, for treatment. Proved highly beneficial by others before him, even as early as 1869 and notably by Waller in 1914, nevertheless it remained for Plummer in 1923 to place its use on a rational basis. The most commonly used form is the compound solution of iodine or Lugol's solution. The French physician, Lugol, in 1830, increased the popularity of iodine by many investigations which proved its value. The official preparation now contains free iodine and potassium iodide. One cubic centimeter or 15 drops contain approximately two grains of iodine free and combined. Thompson, et al, have shown that as little as one

drop a day will lower the metabolism. This finding is well taken, in that it shows large doses are unnecessary in treating medically. The dosage recommended for the mild case is 5 to 15 drops a day, depending upon the patient's reaction to the same. It is best given in fruit juices or milk. Large doses may become necessary depending upon the patient's condition. Smaller doses are desirable so that the beneficial effect of large doses may be received for those coming later to surgery.

Rest periods of iodine administration are desirable to prevent the condition known as refractory state, which occurs in a few cases. Biedl and Redisch claimed that their solution made up of sodium iodide instead of potassium iodide seemed to prevent refractory phase of iodine. We have had insufficient experience to verify this.

Where nervousness is considerable, small doses of barbiturates may be necessary, but they should be used sparingly. Frequently calcium in some form will be sufficient for nervousness. Mild cases with no cardiac complications such as auricular fibrillation or decompensation do not need digitalis.

The care of the skin is quite essential in these cases since pruritus is quite common and so increases the nervousness. One should order frequent baths and when sweating is excessive, belladonna in small doses.

There is a long list of other drugs, which have been used in this condition, and of course, this in itself shows the futility of medical treatment in many cases. Recently there has been developed by Blum in Germany, an anti-hormone, called Katechin under the trade name of Tyronorman. This has been tried, but the experience is too limited to pass proper valuation upon it. It has been predicted by Means and also previously by Crotti that some such hormone substance may be discovered in the future to cure completely toxic goiters of the diffuse parenchymatous type. Certainly the ideal treatment has not been found.

The use of vitamins is highly desirable in these cases, especially A and B. A has been found to be antagonistic to thyroxin and Cowgill and Weiss have stressed the value of vitamin B, both because there has been considerable loss of this vitamin especially where there is loss of weight and since it is beneficial to the heart muscle.

Thyrotoxicosis associated with the menopause is quite common and the symptoms of these states are often similar. Here the use of ovarian hormone in some form often aids the patient. It is well to remember, however, that toxic patients do not like injections.

Speaking from personal experience, radium has not been used, but many claim good results, especially in cases unable to travel to the X-ray laboratory. X-ray treatment is often very effective,

especially in mild cases of purely hyperplastic goiters and those with normal sized glands. It has no place in an attempt to cure nodular, cystic, calcareous or large diffuse colloid goiters. These are definitely surgical. The treatment by X-ray should be under men well experienced in management of goiter cases. Many times the dosage has been too small and so aggravate the symptoms or too great and throw the patient into an acute thyrotoxic crisis.

Statistics of the results of X-ray treatments report the percentage of cures from 55 to 80. The difficulty in evaluating such results is the lack of careful clinical differentiation of cases and determination of the basis of what constitutes a "cure". It is our feeling that mild cases of parenchymatous type will be greatly benefited and some definitely cured by X-ray and medical means. The more severe cases being subjected to X-ray and medical treatment will many of them come to surgery. Mild cases should not be treated over a long period and allow the optimum time for operative procedure to pass and thus increase the mortality rate.

Foci of infection should be considered in treating these cases, especially infected tonsils and teeth. Before any surgery is contemplated it should be preceded by heavy doses of Lugol's solution or sodium iodide intravenously. A minimum of shock and trauma is essential. The question of removal of these foci of infection before attacking the thyroid is a debatable one, depending upon the degree of toxicity. In any event, the patient should have medical treatment, especially plenty of iodine before even minor surgery is contemplated. The general surgeon should be aware of the potential danger lurking in even a mildly toxic patient, since any major operation with general anesthesia may produce post-operative thyroid crisis which is often fatal. If any degree of thyrotoxicosis is present, iodine should be given pre- and post-operatively—intravenously if an emergency.

The incidence of development of primary toxic goiters seems greater in percentage in the female than in the male. It is quite likely that the three cycles, namely, adolescence, pregnancy and menopause have some distinct bearing upon this. Many cases having been previously toxic and even those having had surgery may develop toxicity again especially in pregnancy and menopause. With this realization in mind these cases may be diagnosed early and controlled medically.

The foregoing treatment just outlined is for strictly parenchymatous or so-called hyperplastic goiter, but in instances where patients having nodular goiters absolutely refuse surgery, even when indicated, temporary relief from X-ray treatments and iodine may be secured. One must, however, firmly stress the fact that no attempt is being made to produce a cure and that a more

severe thyrotoxicosis may supervene at any time or malignancy occur.

THE MORE SEVERE TYPES OF THYROTOXICOSIS

One must appreciate at the outset these cases are primarily medical and conservative treatment will make them safe for surgery later. To attempt any surgical procedure or even X-ray treatment upon a case on an upward wave of toxicity is to court disaster.

For treatment, these cases, whether of the nodular or parenchymatous type, may be divided into three classes: the cardiovascular, the gastrointestinal and asthenic.

Cardiovascular patients often present varying degrees of decompensation with generalized edema. Here the principles of treatment for general cardiac cases are carried out. Remove the fluid, if possible, by ammonium chloride or nitrate orally and salyrgan or mercupurin with small amounts of concentrated dextrose intravenously. Sufficient digitalis, especially when auricular fibrillation is present should be administered, remembering that toxic goiter patients require larger doses proportionately than other cardiacs. Iodine by mouth when possible, using chiefly Lugol's solution 10 to 20 drops t.i.d. When there is considerable gastric indigestion it is better to start intravenous sodium iodide or iodine diasporal. Ampules containing one gram or 15½ grains of sodium iodide represent about 13 grains of available iodine which is equivalent to over one and one-half drams of Lugol's solution. There should be a high caloric diet, but temporarily restricted in fluids and salt for those having generalized edema.

The majority of thyrocardiacs will respond sufficiently to such medical treatment as to permit surgery in a reasonable length of time. Many cases having auricular fibrillation may be surgically treated with safety without normal rhythm being restored, other conditions being favorable. Some may need X-ray treatments to make them safe for surgery and thus avoid stage operations. Surgery performed at the right time in these cases often gives brilliant results. Absolute cooperation of surgeon, internist, anesthetist and nurse is necessary to bring these about.

The gastrointestinal group usually represents the most uncertain and disturbing type of cases, and when both diarrhea and vomiting are present they are in a serious state. Treatment includes intravenous and subcutaneous dextrose and intravenous iodide as indicated above. Insulin may be of advantage even in non-diabetics. Vomiting under this routine will ordinarily soon cease.

Diarrhea may require narcotics and where there is no vomiting, bismuth and opium may be given by mouth. Food is better borne in small amounts, frequently, rather than large meals.

Here again, vitamin B₁ especially is desirable and when not tolerated by mouth may be used intravenously or intramuscularly in doses up to 6,000 units or more daily. In this type of cases large amounts of calcium are lost in the urine and stools, producing bone decalcification and an attempt should be made to replace this by large amounts of milk and if later, well borne, calcium by mouth, intravenously or intramuscularly. Fever must be controlled by baths, ice caps and lowered room temperature. Some may need oxygen tents and others barbiturates, rectally, orally and sometimes intravenously.

Asthenic cases will often be found which resemble Addison's disease in some respects, even having definite bronzing of the skin. Blood pressure may be low. They are not highly nervous but extremely weak. The pulse is quite variable, sometimes rapid and again within normal limits and all these factors make one inclined to be less alert to the danger. To the general routine previously outlined, may be added suprarenal cortex which is often beneficial. The aged are frequently in this group and may show mental aberration, requiring careful watching and sedatives.

In the more severely toxic goiters, surgery is indicated at the proper time. There may be some difference of opinion among the profession regarding medicine and surgery for the purely hyperplastic goiters, but for those of the nodular type, surgery offers the only means of cure. The mortality following surgery has decreased steadily in the past 25 years.

Criteria for determining the progress of toxic cases are first, clinical as: noting the reduction in pulse rate, nervousness, sweating, pulse pressure, bruit over the gland and in precordial activity. Laboratory procedures—metabolism often shows marked reduction. Diminution in the blood iodine occurs and sedimentation rate becomes slower. Regarding blood changes, cases with a previous leucopenia and a relative lymphocytosis have frequently been found and as improvement occurs a definite increase in the total white count and marked decrease in the number of lymphocytes have taken place.

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Complications About the Eye in Acute Infectious and Contagious Diseases

JOHN A. TOOMEY, M.D.

SPECIFIC diseases, such as gonorrhea and syphilis, the lesions secondary to trauma, and the infections peculiar to the eyes and eyelids, such as trachoma, trichinosis, etc., are not mentioned in this survey. Only those complications that accompany or are the result of some acute infectious and contagious disease are discussed.

Lesions about the eye may begin in (1) the superficial and loose tissues covering the eye and conjunctiva, (2) in the deeper tissues about the eye, (3) simultaneously in the superficial and deep tissues and in the eye itself. A break in the continuity of the mucous membrane, a disturbed vascular supply, disturbances in the muscles or nerves of the eye causing paresis or paralysis, a disturbance in the optic nerve with loss or diminution of sight and disturbances in structures about the eye may be found.

The common etiological factors are toxins, viruses or bacteria and mechanical changes, which exert their action either directly or indirectly.

I. LESIONS CAUSED DIRECTLY BY TOXINS, VIRUS OR BACTERIA

(1) **Chickenpox:** Single and multiple lesions may be found over the cornea. These are rare, but should they occur the end result is good unless a secondary infection develops.

(2) **Herpes simplex or zoster:** When blistering over the cornea and conjunctiva occurs, the latter is red, the eye painful and photophobia is present. If secondary infection can be avoided, no complications will follow. Occasionally, however, extensive scarring and softening ensues with bulging of an anesthetic cornea and extensive atrophy of the iris.

(3) **Smallpox:** This virus often lodges in some abrasion, multiplies, ulcerates and excavates the cornea. If the lesions be multiple, the sight may be lost. Only one lesion may cause the production of a fair amount of scar tissue.

(4) **Measles:** Conjunctivitis may be present, although not so commonly as claimed. Spots, similar to Koplik's spots, may be found about the inner canthus. Photophobia does not appear so frequently as claimed. A secondary keratitis, corneal ulceration and panophthalmitis infrequently occurs.

(5) **Influenza:** When conjunctivitis is present

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in this disease, the inflammation is of a faint, pinkish color, the rims of the eyelids are red and the eyes, lusterless.

(6) **Diphtheria:** The eyelids may be stuck together and the conjunctivae inflamed. The discharge is serosanguinous in type with a relatively small amount of pus. Organisms are easily found.

(7) **Bacterial Endocarditis; Septicemia; Cerebrospinal Meningitis:** With any one of these diseases, petechiae are often found in the conjunctivae. Conjunctivitis is sometimes present with epidemic meningitis—as well as an occasional abscess of the eyeball.

(8) **Pneumonia:** With pneumococcus infections of the eye, marked conjunctivitis and thick pus are present.

(9) **Scarlet Fever:** Conjunctivitis, keratitis, atrophy or abscess of the bulb occur infrequently.

(10) **Tularemia (Oculoglandular type):** Conjunctivitis, possibly ulcerations and regional lymph gland enlargement are seen. If the disease progresses, optic atrophy may result.

II. LESIONS CAUSED INDIRECTLY BY TOXINS, VIRUS OR BACTERIA

(1) **Diphtheria:** In epidemics of severe diphtheria, paralysis of the external rectus muscle may frequently be present, probably due to involvement of the sixth nerve. The prognosis is good.

(2) **Epidemic Meningitis:** Plastic exudate may be present at the base of the brain and involve the sixth nerve. A hydrocephalus may create such marked pressure that the eyeballs of the patient will be directed downward.

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(SEE PAGE 1289 FOR LEGENDS FOR ABOVE PHOTOS)

LEGEND

- FIG. 1 M.S. Epidemic Meningitis — conjunctivitis — sixth nerve paresis.
- FIG. 2 E.C. Tuberculous Meningitis—Note eyes askew.
- FIG. 3 J.K. Tuberculous Meningitis—Note eyes askew.
- FIG. 4 M.C. Pertussis—Hemiplegia—6th and 7th nerve involvement.
- FIG. 5 P.U. Pertussis—conjunctival hemorrhages.
- FIG. 6 E.M. Pertussis—conjunctival hemorrhages.
- FIG. 7 M.W. Scarlet Fever—Nephritis with oedema of eyelids.
- FIG. 8 P.L. Acute ethmoidal sinusitis; Acute suppurative otitis media; Orbital cellulitis—Admitted to hospital as shown.
- FIG. 9 D.T. Acute dacrocystitis with secondary oedema.
- FIG. 10 D.S. Erysipelas and cellulitis.
- FIG. 11, 12, 13 E.M. Scarlet Fever; Cellulitis and erysipelas of face; Bacteremia, Strep. Beta; Maxillary and frontal sinusitis; Abscess of lids. Pictures taken on admission and 7 days later.
- FIG. 14, 15 M.S. Scarlet Fever; Acute cervical suppurative lymphadenitis; Ethmoiditis—Pictures taken on admission and 6 days later.
- FIG. 16, 17 Scarlet Fever; Ethmoiditis. Pictures taken on admission and 7 days later.
- FIG. 18, 19 W.S. Injury of forehead over left eye. Later, infection in wound of forehead with secondary orbital involvement; Cellulitis of face; Cervical lymphadenitis; Catarrhal otitis media, left; Eczema. Picture on admission and about 10 days later.
- FIG. 20, 21 D.S. Scarlet Fever; Acute ethmoidal sinusitis; Bilateral purulent otitis media; Cervical lymphadenitis; Inguinal lymphadenitis; Hypertrophy of tonsils and adenoids. Pictures taken on admission and 10 days later.
- FIG. 22, 23 C.G. Scarlet Fever; Acute purulent otitis media; Ethmoiditis—Pictures taken on admission and 5 days later.
- FIG. 24, 25 M.B. Scarlet Fever; Cervical adenitis; Pan-sinusitis; Ethmoiditis. Pictures taken on admission and 6 days later.
- FIG. 26 L.K. Scarlet Fever; Acute ethmoiditis—Picture taken on admission.

(3) **Encephalitis:** The sixth nerve is frequently involved with resulting crossed eyes and double vision.

(4) **Tuberculous Meningitis:** Inflammation is present at the base of the brain and the vagus and the sixth nerve may be involved. Often the pupils are dilated and the patient has chameleon-like eyes.

(5) **Scarlet Fever:** In very severe cases, there may be a weakness of the external rectus muscle. The prognosis is not so good as it is when this complication occurs in diphtheria, persistent exercises of the muscles being necessary for a long while.

(6) **Infections around the face and sinuses spreading to the eye and ending in sinus thrombosis:** Over a period of 15 years, 43 patients that died with thrombosis of the venous sinuses of the brain were autopsied at City Hospital, Cleveland. This condition resulted from secondary inflammation in and about the sinuses (maxillary, sphenoidal or ethmoidal), middle ears and mastoids in 27 of the 43 patients; the others were secondary to fracture (two cases), tumors (three cases), bronchopneumonia (one case), spina bifida (one case), lung abscess (two cases), lung trouble of an unknown type (one case), vegetation of the heart valve (one case), osteomyelitis (one case) and questionable origin (one case).

Any infection in or about the eye is commonly due to some local infection elsewhere. It occurs as a complication of a primary disease—a disease caused by any type or kind of bacteria. The eyes and their adjacent structures are often involved because of their proximity to the ethmoidal, sphenoidal and frontal sinuses, particularly the ethmoidals which appear at the seventh month of fetal life. Inflammation or empyema of these paranasal sinuses may result in conjunctivitis, phlegmon of the eyelids, panophthalmitis, retrobulbar thrombophlebitis and venous sinus thrombosis.

How infection spreads from the face and nasal sinuses to the eye and its surrounding tissues is not known. It may be by way of the ethmoidal arteries or veins which connect with the ophthalmic vessels, along lymphatics, by direct extension along a facial branch of a thrombophlebitic vein which in turn causes retrograde involvement of the deeper orbital veins by clogging the anastomatic branches, or through dehiscence openings of the ethmoidal bones. Extension may occur along the anterior ethmoidal veins which enter the cranium through the cribriform plate of the ethmoid and communicate with the venous plexus, the olfactory bulb and the veins of the frontal bone. It may be possible that spread may occur along the olfactory perineural sheaths, along pial sheaths of the optic nerve, along the eighth nerve and along a persistent craniopharyngeal canal, but none of these latter pathways have been definitely demonstrated. Probably the most common spread is by extension along thrombosed veins or arteries with secondary lymphatic stasis.

A spread from the nose (usually from the ethmoidal sinus) may cause secondary swelling at the inner canthus which rapidly spreads to involve both eyelids. Operation at this early stage may cause a fulminating type of reaction and even death. It is for this reason that medical means have been employed to establish drainage of the ethmoids in the hope that the secondary lesion would be aborted if the primary lesion were drained.

When medical therapy is employed, all the discharging material from the nose is sucked out by an electrical apparatus, so that the nasal passages are clear. The nostrils are packed with gauze, pushed back on the floor of the nose toward the posterior palatine shelf. The gauze is then saturated with adrenalin in order to shrink the tissue. The pack is left in place 15 minutes. The procedure is repeated three times daily. If the patient is seen when he is first acutely ill, cold packs are placed over the eyes; if later, and the lesion appears to be more than mere edema, hot compresses are applied. Only the lightest pressure is employed over swollen eyelids in order to avoid

a slough from the pressure. Thirty-six cases in the past two years alone have responded to this mild form of therapy. Thrombosis and death occurred in only three instances (8 per cent). All of these latter patients had their involvements on admission. None that have been seen early enough have gone on to develop cavernous sinus thrombosis.

With the beginning edema of the eyelids at the inner canthus, the sharp orbital lines are smoothed out, and fever and often signs of sepsis are present. When the eyeball is examined at this time it is found to be mobile in every direction and the eyegrounds are negative. The conjunctiva is usually clear although there may be slight involvement of the tarsal area.

Roughly, the lesions about the eye may be found in the front in the lids, in the back or at the side of the eyeball, or inside the eye itself. Many untreated lesions go on to abscess formation. If the lesion stays in the eyelids the prognosis is usually good following the simple regime outlined previously. If the lesion is at either side of the eye, the prognosis, though not hopeless, is less hopeful for extensive thrombophlebitis may occur. If the lesion is posterior to the eyeball or in the eyeball itself, secondary involvement of the ophthalmic veins and secondary extension with thrombophlebitis to the central cranial veins are very apt to follow. If thrombosis occurs, there is edema of the orbit and swelling of the eyelids; the eye loses its luster; sometimes the conjunctiva is folded back on itself; the entire area is bloodshot; the eyeball is thrust forward, although not always in a position of exophthalmus, and it is usually immobile. Often the pupils are widely dilated. The nerve head is usually edematous, the retinal veins are tortuous and there are signs of a localized septic inflammation.

The pathologic findings in this type of case have been described in detail by Lederer.* In brief, there is a local inflammatory reaction followed by a thrombophlebitis, an extension of the thrombophlebitis to the central veins and a retrograde involvement of the larger sinuses in the brain itself, associated, of course, with all the possible side-effects that can occur secondary to a thrombophlebitis, such as panophthalmitis, osteomyelitis, meningitis, etc.

(7) **Upper respiratory infections:** Any one of these infections may be complicated by sudden unilateral blindness with iritis. This is evidenced by a sudden decrease in vision, tenderness of the periorbital veins on pressure over the eyeballs, pain on moving the eyeball, central scotoma and dilated pupil. Some physicians believe that this condition is due to compression of the optic

nerve envelopes. Some think it is caused by spasm of the ophthalmic artery, and others by some allergic factor. I feel that the condition is the result of local toxic neuritis. Recovery is rapid.

III. LESIONS CAUSED BY MECHANICAL MEANS

(1) **Whooping cough:** Rupture of the conjunctival vessels is common.

(2) **Mumps:** The swelling of the tear gland may force the eyeball inward.

Obesity: Its Significance and Treatment

1. Convince or "sell" the patient the reasons for the procedure. "Debunk" the glandular hope. Convince him it is worthwhile.

2. Furnish a definite diet restricted in calories. This is the mainspring which makes the program tick. If a patient can lose one or two pounds a week on a 1,000 calorie diet, no further caloric restrictions need be made.

3. Make the diet safe.

A. Enough protein to guarantee that the patient will be kept in nitrogen equilibrium, 75 to 100 grams a day is satisfactory.

B. Enough available glucose to prevent ketosis. This is not very important as a practical matter.

C. Adequate salts. Iron is usually well supplied in the meat and vegetables. Potassium and sodium should be taken into account only when water balance is a problem. Calcium and phosphates are frequently inadequate in a submaintenance diet. These may be supplied by including milk, cheese, fruits, and vegetables high in these elements.

D. Vitamins. When you substitute a scientific menu for one dictated by appetite, vitamins ought to be provided. The greatest danger, according to Rony, arises from a shortage of Vitamins A and D, particularly A. Brittle nails, dry skin, and visual disturbances may result. These vitamins may be adequately supplied by some of the popular composite vitamin capsules now on the market.

E. Roughage and water.

4. Advise concerning exercise. This is not very important. Many conditions of patients contraindicate it, such as heart disease and old age. As a matter of fact, exercise so heightens the appetite that the more important dietary restrictions are frequently broken. However, it seems wise to prescribe a specific amount of outdoor exercise for most cases.

5. Prescribe thyroid substance. Many doctors object to its use. We see no contra-indications unless the patient is hyperthyroidal or has an idiosyncrasy to the drug, or unless it is given beyond the patient's tolerance. A good procedure is as follows: One-half grain for the first two weeks; 1 grain for the second two weeks; 1½ grains for the third two weeks; 2 grains for the fourth two weeks, etc. It is probably unwise to go above a daily dose of grains 5, even though the pulse remains normal.

6. Drugs to repress appetite have been disappointing. Of course, alcohol should be forbidden, because it increases appetite and adds calories. Tobacco is not to be recommended as a means of suppressing the appetite because it usually fails. Besides, it, like obesity, is a friendly ally of vascular decay. Benzedrine sulfate has been advocated for this purpose. We always use it unless the patient is already nervous and irritable. It may overcome the feeling of exhaustion so common during a reduction program. It may increase metabolism.

7. Dinitrophenol should never be used in weight reduction.—C. F. Kemper, M.D., Denver; Rocky Mountain Med Jour., Vol. 37, No. 11, November, 1940.

*Lederer, F. L.: Fulminant Sinus Disease; Study of the Pathogenesis Surg., Gynec. & Obst. 60:645:1935.

Empyema Thoracis: A Method of Treatment by Continuous Tidal Irrigation and Drainage

JACK GREENFIELD, M.D., AND GEORGE M. CURTIS, M.D.

EVIDENT progress is being made in the development of modern thoracic surgery; nevertheless, the proper treatment of empyema remains a debated subject in the literature as well as among members of hospital staffs. It is the object of this paper to consider a method, based upon physiologic principles, of managing non-loculated empyema; which may be instituted in the acute phases of the disease; and which has proved satisfactory to us.

The situation faced in the treatment of the usual empyema is that of an infected effusion lying between the visceral and parietal pleura, producing its ill effects by toxicity from absorption of bacterial products and by reduction of the vital capacity due to lung compression. In the acute phase the mediastinum is still mobile and the lung may be readily expanded. After two weeks, however, there is thickening of the pleura by the formation of a pyogenic membrane. The situation then changes to that of a pus-filled non-collapsible cavity formed by the rigid thoracic wall, the now fixed mediastinum and the inelastic visceral pleura, thus simulating the problem faced in the treatment of chronic osteomyelitis; an infected cavity which is obliterated only with difficulty.

In either case therapeutic measures should be directed toward drainage of the pus and subsequent obliteration of the cavity. Without treatment this is occasionally accomplished by rupture into a bronchus, whereupon the pus is coughed up; or by burrowing through the chest wall and emptying externally (empyema necessitatis). The lung then fills the cavity, if in the interval the pleura has not become too thick to permit of its re-expansion. An historical investigation of how surgeons have tried to master the problem brings out a number of interesting points.

Due to his observation that the disease was frequently relieved by the appearance of an empyema necessitatis or by the development of a bronchopleural fistula, Hippocrates is reported to have practiced repeated thoracentesis, and in chronic cases, open thoracotomy and drainage as the method of treatment.^{1,2} The mortality was very high. These procedures were practiced with diagnostic difficulty until the time of Laennec^{3,4} who, in addition to introducing the stethoscope,

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advocated frequent thoracentesis as the sole therapy to prevent the "fatal syncope" resulting from "too sudden evacuation" of the pus. In 1840, Hughes and Cock used thoracentesis with suction and reported fair results.⁵ Previously, in 1807, Delorme had reported successful treatment of chronic empyema by rib resection with open drainage, but in 1879, Estlander⁶ and again in 1890, Schede⁷ advocated their respective types of thoracoplasty to collapse the chronic cavities sometimes resulting after open drainage.

Due to the prolonged treatment required by patients with open operations, there was a tendency to neglect them, and at times the openings would close before the empyema had drained sufficiently; so, in 1894, Beck⁸ recommended suture of the pleural edges to the skin to keep the cavity open. Moreover, the copious drainage from the open operation presented such a need for dressings that, in 1905, Brown⁹ advocated, as an aid in the management of these patients, the use of a dilute iodine bath in which the patient with the open operation was immersed, thus allowing the solution to bathe the pleura. That same year, Hammond¹ reported a simple trocar thoracotomy, performed under local anesthesia, with a closed type of drainage. By this method, the hydrostatic negative pressure exerted by the column of liquid between the empyema cavity and the drainage bottle into which the tube led, was presumed to "draw out the pus", thus allowing the lung to re-expand and to fill the cavity. Others found, to their disappointment, that the pus would leak around the tube as often as passing through it and that often the lung would not re-expand. It was thus concluded that the suc-

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tion was not sufficient and upon this premise, Greenbaum,¹¹ also in 1905, applied greatly increased suction even up to 80 mm. of mercury. This unwarranted suction, however, was soon found to pull the lung over the internal opening of the drainage tube, pocketing the pus around it, and at times actually to injure the lung tissue. Many used the closed suction method only to revert to the open and vice versa.¹²

In an effort to overcome this confusion of methods and to establish a definite and adequate management of empyema, an empyema commission was established in the United States during the World War.¹³ After investigation and trial of the various methods, aspiration until the pus became thick and then rib resection thoracotomy with intermittent irrigation, using Dakin's solution, was recommended. Earlier, when open drainage in acute cases had been used in the army camps, the mortality varied from 50 to 70 per cent. It was thought that death in these instances was due to shift and flutter of the not yet fixed mediastinum.^{14,21,22} Today, mediastinal flutter is regarded as the main disadvantage of the open method in acute cases.

Subsequent to thoracoplasty and where pneumothorax therapy is used for pulmonary tuberculosis, a moderate shift of the mediastinum ordinarily causes no ill effects, but when flutter occurs, the body compensates with difficulty to changes in circulation; moreover, the "pendulum air" effect is concerned. The Empyema Commission concluded that it was necessary to wait until the mediastinum was fixed. Since the Commission's recommendations, repeated aspiration during the acute stage and then open operation in the chronic stage, with modifications, has become the more widely-used procedure.^{14,15}

Certain of the patients so treated, because of chronic non-collapsible cavities resulting from delay in instituting adequate drainage, required several plastic operations and long periods of hospitalization. There thus resulted a greater degree of morbidity and, at times, deforming scars.

The observation that the introduction of liquid into the pleural cavity is more readily borne, that it tends toward lesser mediastinal flutter by virtue of its action as a mechanical buffer, moreover, that it does not cause the degree of collapse on the opposite side that a similar quantity of air causes when the mediastinum is not fixed,¹⁴ led to a basis for further progress in the treatment of non-loculated empyema.

In an attempt to overcome the chronicity and deformity resulting from the open method of drainage in the chronic stage; to eliminate the uncontrolled toxicity of treatment by repeated aspirations; to avoid the danger of mediastinal flutter presented by the open operation in the acute stage; and to do away with the difficulties

encountered by the old closed method, Hart^{17,18,19} in 1928, introduced the method of continuous tidal irrigation and drainage. Through a tube inserted into the chest by simple trocar thoracotomy, the empyema cavity is irrigated and drained, the respiratory movements of the lungs being employed to draw in the irrigating fluid and to expel the purulent mixture. When the cavity has become clean, the lung is gradually pulled out to fill the space by means of progressively increased negative pressure induced by fluid suction. This method may be used, as soon as the diagnosis is made, in both the acute and chronic phases of empyema. The type of pyogenic organism involved is of lesser importance. Because this method of management required more attention, as well as a better knowledge of the physics and physiology involved, and at first glance seemed more complicated than the more common methods, it was condemned by some as being too complex and unnecessarily detailed.^{16,20} Its lack of popularity is a result of such criticism.

By simplifying the original apparatus, we have found that the method of continuous tidal irrigation and drainage with subsequent suction could be more easily managed and that it fulfilled expectations of a better method of treatment in most cases of empyema. Very few dressings are required while the internes and nurses readily learn the mechanics and management. Consequently, an attempt will be made to present the apparatus and procedures employed in such a manner that others may become familiar with them and perhaps be encouraged to use the method where indicated.

METHOD AND MANAGEMENT

The materials required are readily obtained, particularly in the average hospital supply room. For the apparatus, the following articles are necessary: Two one-liter gravity bottles, a one-gallon jug, about ten feet of one-quarter to three-eighths inch rubber tubing, two screw clamps, a Murphy drip connection, a glass T-tube and a glass Y-tube. These are assembled as shown in Figure 1, and sterilized. In addition, the desired sterile solutions are prepared, such as normal saline, ½ per cent acetic acid, Dakin's solution or 1:3300 aqueous azochloramid.

For the operation, the necessary materials are a thoracocentesis trocar cannula large enough to admit a number 20 French catheter, a number 20 French catheter with its tip cut off on a bias, a sharp scalpel, several hemostats, five cubic centimeters of one per cent novocaine, tincture of benzoin, a syringe and needle, and adhesive tape.

The operation is such that it may be done in the patient's room if desired. After the empyema cavity is located as accurately as possible by physical, fluoroscopic and X-ray examination, a point level with the most dependent portion of

the empyema is selected. If possible, this point should be no farther back than the posterior axillary line. The patient is placed on the uninvolved side with a pillow under the thorax in order to spread the rib interspaces on the involved side. The area about the selected point

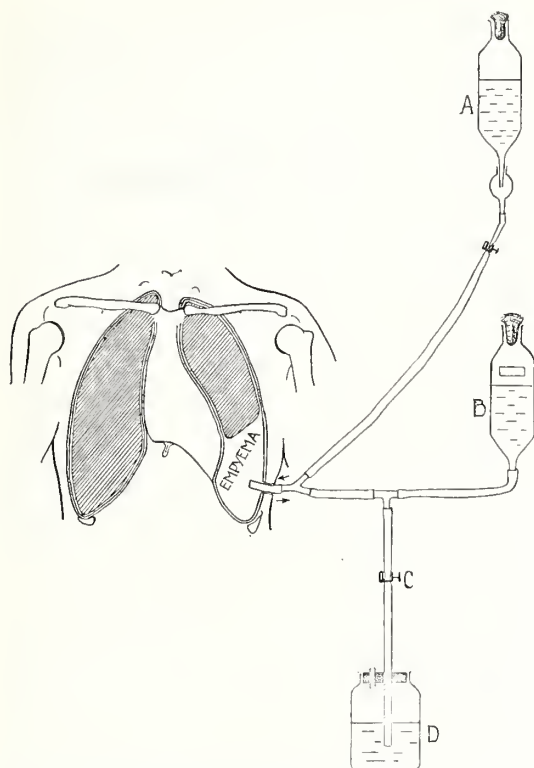


Fig. 1—The apparatus used for continuous tidal irrigation and drainage of empyema of the thorax.

is then prepared and infiltrated with novocaine down to the pleura. The needle is then pushed through into the pleural cavity, noting the depth of penetration, and some of the pus aspirated to obtain a culture as well as to check the accuracy of the estimated location of the empyema. The needle is then withdrawn and a small incision about one centimeter long made in the skin through the selected point. Keeping near the upper surface of the rib below, so as to avoid injury to the intercostal nerve or vessels, the trocarnulla is pushed through the soft tissues into the empyema cavity for a distance equal to that which the needle has penetrated. The trocar is then withdrawn, leaving the cannula in place. The catheter is inserted until the tip lies about two centimeters within the empyema cavity. The cannula is then removed, being careful not to admit too much air nor to pull the catheter out in the process. A hemostat is placed on the catheter at the chest wall to prevent pneumothorax and the catheter is cut off two inches from its point of entry into the thorax. In the meantime the irrigating bottle, Fig. 1, A, is filled

with normal saline. The apparatus is attached to the catheter at the Y-tube, the irrigating bottle, A, hung on a standard about three feet above the level of the chest, and the drainage bottle, B, hung on the same standard at the same level as the empyema cavity. Air is removed from the system by closing the clamp, Fig. 1, C, opening wide the clamp at the Murphy drip, and raising and lowering the drainage bottle. The Murphy drip is regulated to deliver at a rate of about twenty drops per minute. Then the hemostat is removed from the catheter at the chest wall, allowing the system to operate. A to and fro movement of a mixture of pus and solution will be seen in the Y-tube. The skin around the catheter is painted with tincture of benzoin for protection against irritation and the catheter secured to the skin with strips of adhesive tape. A marker of adhesive tape is placed near the top of the drainage bottle and the nurse in attendance is instructed to empty it when that mark is reached by the rising drainage in the bottle. This is accomplished by opening the clamp, C (Fig. 1). The tube leading to the one-gallon jug, D, (Fig. 1) must be under liquid at all times to keep the system closed and is

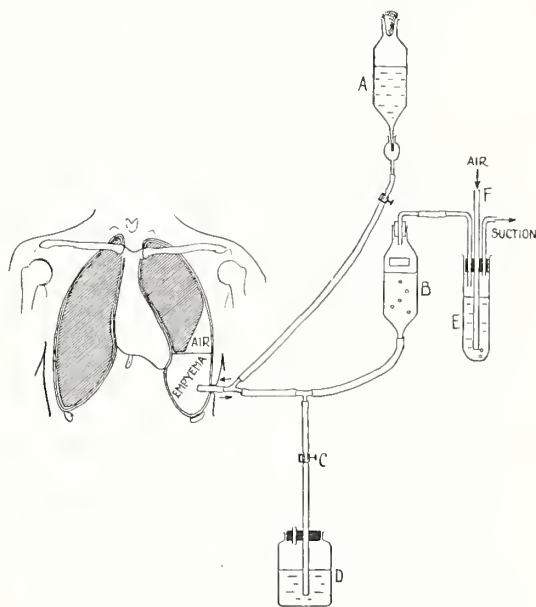


Fig. 2—The apparatus used for continuous tidal irrigation, drainage and suction of empyema of the thorax complicated by bronchopleural fistula.

clamped off except when emptying the drainage bottle.

If a bronchial fistula is present, as demonstrated by the coughing up of methylene blue injected into the empyema cavity, then suction is added to the system. A suction regulating appliance is added and the drainage bottle, B, (Fig. 2) placed about four centimeters above the level of the empyema cavity so that the air may rise

into it. The suction regulator, E, (Fig. 2) is made of a glass test tube, 12 inches long and about one and one-half inches in diameter, with a three-hole rubber stopper and glass tubing. The long straight tube, F, is two feet long and is kept under water. The suction on the empyema cavity is increased when the tube is pushed farther into the water, and decreased when its distance in the water is decreased. It is adjusted so that it pulls through the air without stopping the to and fro movement of the fluid in the Y-tube.

By the contractile force of the lung on expiration, the irrigating solution is drawn into the pleural space and mixed with the purulent exudate. Upon inspiration, the expansion of the lung forces some of the mixture out into the drainage bottle, B. This to and fro or tidal action soon evacuates enough pus to make the drainage cloudy instead of opaque. On the following day, one of the antiseptic solutions, previously prepared, may be alternated with the saline. As long as the drainage bottle is kept at the level of the empyema, the size of the cavity remains the same.

The first stage of the treatment, drainage of the pus and sterilization of the cavity by continuous irrigation and drainage, takes about one week. When the fluid coming from the empyema

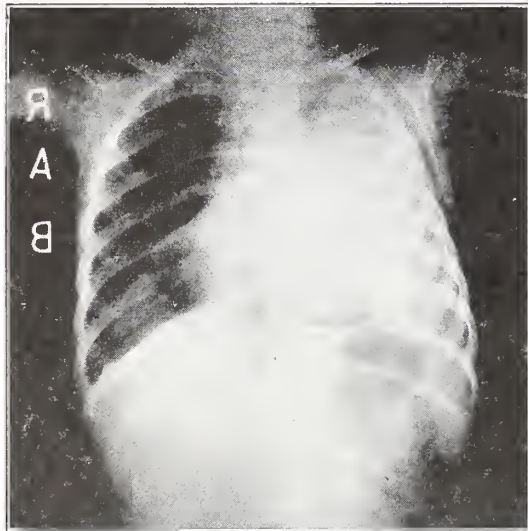


Fig. 3—Admission roentgenogram showing massive empyema of the left pleural cavity.

cavity has become clear, the drainage bottle, B, is lowered a distance of one inch every forty-eight hours. This difference in levels, between the fluid in the drainage bottle and the fluid in the empyema cavity, exerts hydrostatic negative pressure on the empyema cavity equal, in centimeters of water, approximately to the distance in centimeters between the two. Thus, by gradually lowering the drainage bottle, the lung is

slowly pulled out to the chest wall. In this manner the drainage tube is not blocked, no pocketing can occur and rupture of the lung is avoided. If the empyema is chronic and the pyogenic membrane on the visceral pleura too thick to permit expansion of the lung, full-

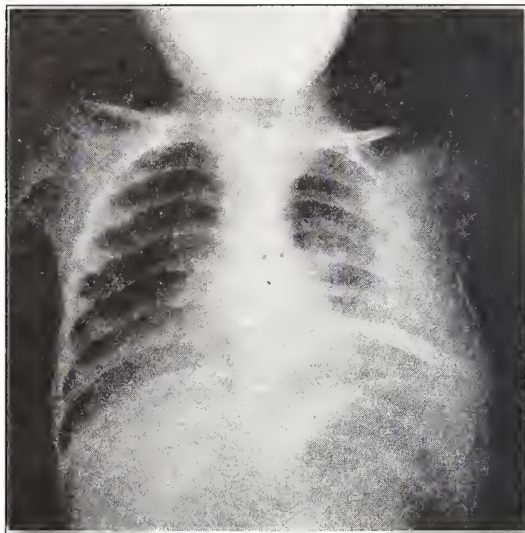


Fig. 4—After six days of continuous tidal irrigation and drainage: The drainage bottle had been lowered 3 cms. by this time. The partial re-expansion of the lung, decrease in size of the cavity and position of the catheter can be seen.

strength Dakin's solution may be used as the irrigant. By its use the pyogenic membrane will be thinned to a point where the pleura is again pliant, allowing the lung to expand and fill the cavity. After ten days to two weeks, the process of re-expansion of the lung and obliteration of the empyema cavity is completed. The remaining sinus, formed by the catheter, closes spontaneously or is closed by applying suction to the catheter while gradually pulling it out from day to day. This takes from two to seven days.

When bronchopleural fistula is present, the regulated suction will usually close the fistula within about four days. Treatment is then carried out as for uncomplicated empyema.

During the treatment period, the catheter should be well secured so that it will not penetrate too far into the pleural space nor slip out. This is checked by repeated X-rays. The cavity may be measured by clamping off the Murphy drip, allowing the empyema cavity to empty itself and then clamping off the tube leading to the drainage bottle. The amount of solution that will then enter the cavity is a measure of its size. In addition, the cavity should be flushed out at least once a day by letting the solution run in and out freely for a few minutes. By dilution of the pus blockage of the catheter is avoided.

When the patient's temperature falls and no

dyspnea is present, the patient may be allowed to sit up in bed or in a chair with the apparatus attached. It is necessary to see that the drainage bottle is never higher than the empyema cavity when this is done. Along with this method of management any other measures that may be of help are carried out, such as the administration of oxygen, fluids, transfusions or the newer drugs.

A case of semi-chronic empyema in a child, managed according to the above principles and method, is presented in order to bring out the practical considerations involved:

CASE REPORT

D.P. This 16 months old white male child developed pneumonia in the left lung during the first week of March, 1939. Because the child maintained a fever for the ensuing five weeks and because he would take no food except milk in small quantities, causing him to lose about one-half of his body weight, the family physician was again called on April 10, 1939. He did a thoracentesis and obtained pus. The patient was then sent to the University Hospital, where he was admitted to the Research Surgical Service on April 11, 1939.

Physical findings: T. 102. P. 120. R. 100. The child was emaciated and appeared extremely ill. He weighed thirteen pounds. The nasal and pharyngeal mucosa were red and edematous and

astinum was pushed to the right. X-rays confirmed these findings (Fig. 3).

Laboratory findings: Hemoglobin 13.8 grams (Sahli); red blood cells, 5,100,000; white blood cells 40,150 with 68 per cent polymorphonuclear neutrophils, 12 per cent young forms and 20



Fig. 6—Appearance of scar at the termination of treatment.

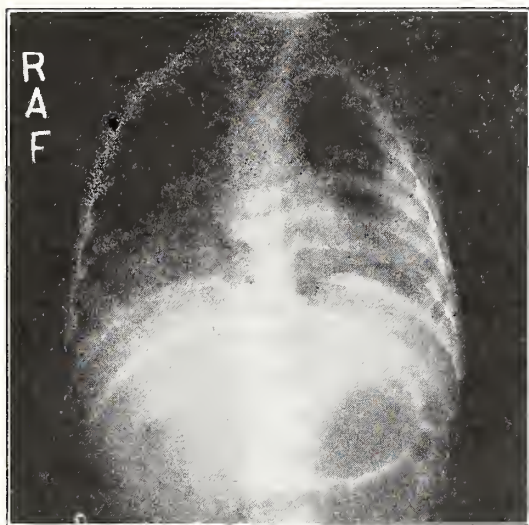


Fig. 5—Empyema cavity obliterated, lung re-expanded and catheter removed. Residual pleural thickening is seen.

there was a large amount of discharge from the nasal passages. The tympanic membranes were normal. The interspaces on the left side of the chest bulged, and the left side moved very little with the respirations. There was dullness and diminished breath sounds over the entire left side of the chest. Beading of the ribs and bowing of the legs were present. There was also moderate cyanosis of the lips and sub-ungual regions.

Upon fluoroscopic examination fluid could be seen filling the left pleural cavity and the medi-

per cent lymphocytes. The urine contained a trace of albumin and one to two white cells per high power field. Smears from the nose and throat grew Gram positive diplococci on culture. Smear, culture and typing of the aspirated pus revealed type I pneumococcus.

Hospital course: Immediately after localization of the empyema, thoracentesis was accomplished in the left eighth interspace in the posterior axillary line. Very thick yellow pus was obtained. That point was then infiltrated with novocaine, a trocar thoracotomy done and tidal irrigation and drainage started with normal saline as the irrigating solution. The cavity at this time measured 400 cubic centimeters. Immediately following the procedure, the patient was given a transfusion of 250 cubic centimeters of citrated blood. On the following day a check X-ray showed the catheter to be two centimeters inside the pleural cavity. 1:3300 azochloramid solution alternated with saline was then started as the irrigating agent. On the third day another transfusion was given. By April 16th, the patient was eating well and the drainage had become clear. Thereupon, the drainage bottle was lowered a little daily (Fig. 4) and subsequently, during the next five days, was lowered fourteen centimeters from the level of the chest. On April 20th, the empyema cavity measured only one hundred cubic centimeters, on April 24th, 50 cubic centimeters, and on April 28th, the

catheter was removed because the empyema cavity was obliterated. Within the next few days the residual sinus closed (Fig. 5).

In the meantime, however, on about the twelfth postoperative day, the patient had developed a bronchopneumonia on the right side. This was combated by the use of sulfapyridine. The patient was discharged on May 15, 1939, with temperature, pulse and respiration normal; chest clear on physical and X-ray examination; having regained his pre-illness weight of 23 pounds; and without a very noticeable scar (Fig. 6). When last seen in August, 1939, the child was in good condition.

DISCUSSION

It is the aim of surgical therapy to restore function with the least possible mortality, morbidity and deformity in the shortest possible time. In the case of empyema, the methods of treatment by aspiration, by the open method and by the older closed method, all have disadvantages.

By aspiration alone, chronicity is favored and toxicity may be poorly controlled. When the pus becomes too thick to pass through the needle, open drainage may become necessary. Since the method presented may be instituted immediately upon diagnosis, whether the disease is acute or chronic, the toxic products are drained early; moreover, the constant irrigation helps prevent further pleural thickening and suppuration.

With the open method of drainage there is a danger of mediastinal flutter if accomplished during the acute stage. If one waits until the chronic phase has been reached, then the pleural surfaces are thickened, making it more difficult to collapse the cavity when drainage has ceased. Frequent dressings are necessary and a long hospitalization is usually required. Deformity may later ensue when thoracoplasty procedures are necessary to collapse the residual cavity. By the use of closed tidal irrigation and drainage the period of hospitalization may be cut down, only occasional dressings are necessary, the cavity is more readily collapsed, and no decreased vital capacity or deformity results. However, when loculation has occurred, thoracotomy with rib resection may prove necessary to give exposure for breaking down the pockets.

If the old closed method of drainage is used, either with suction produced by machines or with suction produced by the hydrostatic negative pressure resulting from placing the drainage tube under liquid at a lower level than the empyema, there is no control over the size of the empyema cavity, the lung may re-expand too rapidly and pus be pocketed off. If the suction is too great, the lung may occlude the inner opening of the tube or even be injured. Since there is no dilution of the pus it may be thick enough to occlude the tube and result in inadequate drainage.

The method here presented overcomes certain of these disadvantages. The pus is diluted and

the size of the cavity is not decreased, nor the lung allowed to re-expand, until the pus has been drained off and the pleural walls have been fairly well sterilized by the action of the continuous irrigation. The decrease in the size of the cavity is then gradual and controlled, so that pocketing or injury to the lung does not occur.

There is but little morbidity when this method is used. The operation is not disabling. Often the patients will be sitting up on the sixth day. They can feed themselves and routine care is facilitated. However, when an empyema occurs in the space left after a pneumonectomy, there is no lung to act as motor for the tidal irrigation and drainage. Also, when the walls of an empyema cavity are very thick, ordinary suction will not expand the lung and thus obliterate the cavity. The results obtained by the use of tidal drainage and irrigation with subsequent suction have been very satisfactory for both acute and chronic empyema.^{17,18,19} It is true that it requires some knowledge of mechanics and chest physiology, and more attention; however, the excellent results overshadow these disadvantages. With a little study, the underlying principles are soon grasped and the management thereafter becomes more simple.

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Special Education for the Physically Handicapped

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I AM glad to have the opportunity of speaking briefly to this group because people in the public health service have contributed much in the development of the special education program in this state.

Ohio has one of the most comprehensive programs for handicapped to be found anywhere in the country, yet it falls short of giving every handicapped child his full opportunity during the brief period in which he must have his chance. We are justly proud of Ohio's program but we should not lapse into a lethargic complacency and be satisfied with the status quo. You may know the Negro minister's definition of that Latin phrase: "Status quo is the fix we are in without gettin' any better or worse". When our program ceases to grow better it faces grave danger of growing worse.

There are two horns to any adequate set-up for handicapped children. On one hangs the phase of the program that is concerned with physical diagnosis and treatment. On the other hangs special education.

The physical end of the program is on the move. The year 1940 finds under way in Ohio—

- (1) Surveys in the field of the deaf and hard of hearing to discover number and needs of these children.
- (2) The prevention of blindness program of the State Commission for the Blind through its clinics, is uncovering partially sighted children in the state.
- (3) The expanding program of care for crippled children with Federal and State money and workers joining hands, is going forward.

These programs bring to light more and more physically handicapped children with increasing demands on special education.

Now let us consider the educational needs of the handicapped child. To begin with he has the same educational needs as the child who is normal physically. In order to give him equal opportunity for education we must give him special consideration. The scales have to be weighted in his favor. The crippled child needs special treatment (23 physiotherapists now carry out the treatments prescribed by orthopedists for children in special classes). The crippled child needs special transportation or possibly his educational program must be brought to his bedside. Crippled children numbering 1300 had instruction in their homes last year including cases of chorea, tuberculosis

of the lungs, cardiac involvement and epilepsy. In the care of the deaf and hard of hearing, a special school procedure must be followed. We know that deaf children of normal mentality can be taught to talk. This procedure calls for teachers of excellent training. With the partially sighted, special lighting, special clear-type books and a program of eye hygiene is necessary. All this means we must have special classes with special facilities to give the handicapped child normal opportunity.

Ohio now has 88 orthopedic classes, 83 sight saving classes and 71 classes for the deaf and hard of hearing. Many of these classes are located in smaller cities, some of them even in the country. These classes in small cities and villages serve wide rural areas about them.

It has been the policy of the Division of Special Education to offer special educational opportunity to every child whether he lives in the hub of a metropolitan center or on the rim of a remote rural area. In regions where there is not a sufficient number of crippled children to form an orthopedic class or of partially sighted children needing a sight-saving class, combination classes have been formed in order to give special educational opportunity to these children without requiring them to go a long distance from home. As far as we know, Ohio is the only state which has met the rural problem to this extent.

While interest in physical care of children is growing it is easy to forget the importance of education. When a child is physically handicapped, the physical part of his handicap is obvious and at once we want to do something about it. We want an orthopedist and a hospital and an operation and a cure at once. And we are willing to pay for it. So our program of physical care is expanding. We are spending more and more money for physical care and it is right that we should.

Let us compare special education appropriation of this biennium with that of ten years ago. You understand the co-operative plan of financing classes with state and local monies, whereby the law provides that the state shall pay the excess cost of educating children over the cost of educating regular school children.

An examination of the figures reveals that about \$15,000 more money per year was appropriated for special education in 1928 than in 1938. While the money provided for special education remained about the same, the number of children needing special education has increased about 50 per cent. So at the present time, we

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are trying to provide special education for 50 per cent more physically handicapped children with \$15,000 less money.

If we continue to pinch pennies, our program of special education cannot keep pace and the result will be thousands of educationally handicapped children in our state—educationally handicapped adults in the future. We can see a twisted leg at once; an educational handicap is just as real but less obvious. Most people are inclined to deal with the concrete things that they can see, often forgetting the less tangible phases of a problem. Perhaps you have seen some of the physically handicapped people who beg on the street. Much of the condition you see in a case of this kind is traceable to educational handicap.

No statement relative to the program, both physical and educational, would be complete without calling attention to the part played by the Ohio Society for Crippled Children. In every battle that has been fought for special education and physical care the Ohio Society has been in the first line trenches to protect these children. In a number of instances, the county units of the Society are sponsoring the entire program of special education.

Without the Ohio Society for Crippled Children, our state program of special education could never have developed to the point that it has.

There is need for fuller recognition of the requirements of special education. If I could present this to you graphically enough, you would see that the special education program in this state must keep pace with the program of physical care. The physically handicapped child appeals to every citizen in the state for a more adequate program of special education.

Rheumatic Fever

It is a mistake to think of involvement of the heart as a complication of rheumatic fever. Cardiac involvement is an integral part of the disease. In the milder cases that are well taken care of, usually the heart suffers no permanent damage. At the same time about one person in three with rheumatic heart disease does not recall any history of rheumatism. Some of these may have had only mild joint pains, some may have attributed trouble in adolescence to "growing pains." Perhaps chorea will explain some, perhaps the only illness remembered is frequent sore throat. Probably in most cases the initial rheumatic infection seemed so ephemeral that little attention was paid to it, and it may be that a doctor was not even called. A story of frequent nosebleeds can be obtained in many cases.—L. Minor Blackford, M.D., Atlanta; Jour. Med. Assn. of Ga., Vol. XXIX, No. 9, September, 1940.

Hypertension

Once the diagnosis of essential hypertension is made the astute physician proclaims somewhat as follows: "Mr. Man, your blood pressure is somewhat elevated. If you act and think after a certain fashion this condition will not bother you, at least for many years. I don't even want you to know what your blood pressure is. Let me worry about that, and don't ask me to tell you what it is." The physician then proceeds to establish a regime of moderate living, as free of stress and strain as possible; often it is wise to put in writing the time of retiring, certain daily rest periods, etc. For a man to assume a new philosophy of life is not easy, but if the physician keeps driving home his lesson of calmness of thought and tranquility of action, his efforts may finally succeed. When rechecking the blood pressure, the medical adviser may merely state, "not bad," or "better," or "could be a lot worse." The use of a mild sedative is often advisable. The old-fashioned idea of greatly restricting the consumption of meat is undoubtedly erroneous, and its enforcement may cause considerable unhappiness. Moderation in eating is the only rule of diet for cases of uncomplicated hypertension.

There are still physicians who prescribe the nitrites for patients with hypertension. The only indication for their use in an attack of angina pectoris. A patient now under observation was given 1/200 grain of nitroglycerin twice daily for years. In treating hypertension we are trying to relieve the patient of all unnecessary burdens, not adding a ritual of useless medication.

Sulfocyanate therapy has been revived in late years, and Barker of Chicago has established it on a scientific basis. However, its beneficial effects are limited and it is doubtful whether it will ever be used extensively.

One other problem may be discussed in conclusion, that of the proper time to digitalize a patient with hypertension. It seems logical to do this at the earliest indication of the presence of congestive heart failure, namely, when undue dyspnea on exertion develops, whether there are basal pulmonary rales or not. Once the patient has been digitalized he probably should be kept on a maintenance dose of digitalis indefinitely.—Wallace M. Yater, M.D., Washington, D. C.; Med. Annals, District of Columbia, Vol. IX, No. 9, September, 1940.

The tuberculosis patient is not a character out of a book but a human being whose reactions to tuberculosis are essentially his general response to life and its difficulties.—Everett T. Conlogue, M.D., Amer. Rev. of Tuber., Aug. 1940.

Sterility

CHARLES W. PAVEY, M.D.

THIS paper makes no pretense of covering the subject. It is rather a brief consideration of the common general aspects of the condition.

The essentials to pregnancy are an ovum, a spermatozoa, a meeting and union of the two, and implantation and continuation of the implanation.

The obstacles to pregnancy are any factors preventing this set of circumstances. Inadequate spermatogenesis may result from syphilis, senility, endocrine disturbance or debilitating disease. Failure of ovulation is due to the same factors. Meeting of the sex cells may be prevented by obstruction of the oviducts (uterine tubes) or vas deferens, by spermaticidal vaginal secretions or by failure to have intercourse within 48 hours of the time of ovulation. Implantation of the fertilized ovum may be prevented because the endometrium is unhealthy or unreceptive, usually as a result of some break in the reproductive endocrine chain. The same condition of the endometrium in lesser degree may allow a temporary implantation and later result in abortion. In the early months deficient corpus luteum hormone results in abortion regardless of the implantation.

The determination of which of these factors or combination of factors is responsible for any given case of sterility can be made by a process of elimination.

A general history and physical examination may reveal obvious leads for further investigation or may indicate the desirability, in the case of certain hereditary diseases, of letting well enough alone.

The first thing in any case of presumed sterility is to explain the importance of ovulation time. In women with regular menstrual cycles ovulation takes place 14 days before the first day of the next expected period. The short life of both ovum and sperm makes it absolutely necessary that the sperm reach the birth canal within 48 hours of the time of ovulation.

But now to get back to the regular routine physical examination. We have prepared an examination outline which we find helpful in confining our examination to the things we want in this connection, and at the same time it helps to keep us from omitting essential points.

Most of the points to be brought out by the history are self-explanatory. However, it might be wise to point out a few of the things that are sometimes overlooked. In the past medical his-

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tory, for example, particular inquiry is made concerning mumps because this disease is not an uncommon cause of sterility in both men and women by producing more or less gonadal atrophy. Gonorrhea, of course, is a frequent cause of obstruction in the epididymis or the oviduct. Syphilis is mentioned not so much because it is a cause

Chief Complaint	Amount
History	Evidence of Ovulation Time
Past Medical History	Sex Habits
Mumps	General Health and Appearance
Gonorrhea	Physical:
Syphilis	Thyroid
Wassermann	Pulse
Previous Pregnancies	Blood Pressure
Operations	Hands
Menstruation:	Temperature
Interval	Moisture
Flow	Skin
Pain	Breasts
Age at Onset	Hair (distribution)
Clots	Posture

of sterility, but because its constitutional reaction results in impaired fertility and stigmatized offspring, and no treatment for sterility in the presence of syphilis should be undertaken until the disease has been adequately treated.

A history of previous pregnancies, particularly if they were of any appreciative duration, indicates that there is no congenital obstacle to conception. The history of operations is important as it applies to operations upon reproductive organs or post-operative complications that may have exercised some deleterious effect upon the pelvic structures.

The character of the menstruation, like many of the factors of the physical examination, is of importance in that it provides a working index to the general state of endocrine function of the

reproductive chain. Evidence of ovulation time may consist of a midmenstrual pelvic discomfort or sharp pain, a slight spotting of blood from the vagina, disturbances of the complexion particularly on the face or back, or a variety of other minor changes that will often be detected when the patient is instructed in what to watch for.

The sex habits of the couple are of utmost importance because in many cases of sterility the basic factor is that certain couples go for years without having intercourse during the very limited time that it is possible for pregnancy to take place. Inquiry should be made into this subject, and the importance of intercourse within 24 or at most 48 hours of the time of ovulation should be explained.

One of the simplest, most positive, and absolutely essential tests concerns the spermatozoa which should without exception be checked in every case before proceeding to more costly and complicated matters. In the face of evidence of syphilis or other severe constitutional diseases the reproductive cell is particularly under suspicion, but the ease of testing the spermatozoa and its self-evident importance demands that it be one of the first tests to be made. Information on the ovum must of necessity be inferential, but the sperm can be easily collected and examined microscopically.

There are a number of methods of collecting the spermatozoa in general use. The rubber condom is the one most generally described, and post-coital aspiration from the vagina is almost always mentioned in this connection. A slight modification of this last named method is the one that we prefer. The method consists of having the patient, following intercourse, insert in the vagina a small rubber cup which is available commercially under the trade name of "Hykup", or "Foldene", and perhaps other names. This little device, which was originally intended to replace the napkin for trapping the menstrual flow, is easily inserted by the patient and serves as a very effective receptacle for trapping the seminal fluid. The device is then worn directly to the doctor's office within the shortest possible time, although experience will show that many hours can elapse in most instances without interfering with the effectiveness of the test. In the office the cup and its contents are removed and a microscopic examination is made.

There are a number of obvious advantages to this plan of procedure, the most notable being that the test can be carried out if necessary without either the knowledge or consent of the husband. This is an advantage that need not be elaborated upon for anyone familiar with masculine psychology, particularly in the face of apparent sterility. Another advantage is that it gives a good idea not only as to whether or not adequate numbers of living spermatozoa are deposited, but also gives further information con-

cerning the period of their viability and retention of vigor under natural circumstances, a point that seems to be of more than passing importance.

A thin layer of seminal fluid on a slide under a cover slip should show tremendous numbers of uniform, homogeneous, actively motile spermatozoa. Failure to make this finding gives a strong lead as to the probable source of the trouble. If sperm are scarce or absent or malformed, there is little point in proceeding further unless this situation can be overcome. If sperm seem to be present in adequate numbers but show no signs of life, the reaction of the vagina comes under suspicion. It is due for checking in the next steps of the physical examination of the woman. If it is thought that the sperm may be deposited alive but do not survive, a condom specimen should be obtained.

In obtaining the condom specimen it was formerly generally believed that the maintenance of body temperature in the specimen was of the utmost importance. At the present time, however, the belief is that it is better that the specimen be kept cold on the grounds that the spermatozoa live much longer under such conditions even though they may be temporarily inactivated by low temperatures. When they are deposited upon a warm slide their natural activity is restored.

On the other hand if numerous active sound spermatozoa are found the probabilities are that the difficulty is in the woman's reproductive tract above the external os of the cervix.

We now proceed to the pelvic examination which we outline as follows:

Vulva	Uterus:
Vagina:	Depth from External Os
Color	Position
Texture	Mobility
Discharge	Annexa
Reaction	
Smears	
Cervix:	
Reaction	
Mucus	
Length	

Inspection of the vulva may convey some hint of possible endocrine dyscrasia if there is marked hypoplasia, hypertrophy, or abnormal distribution of hair. Rarely anatomical abnormalities preventing normal intercourse are encountered. Evidence of old or acute infectious lesions involving the vulva skin, and Skene or Bartholin glands may also be found.

The reaction of the vagina should be acid with a pH of about 4.5 to 5, and the cervix should be alkaline with a pH of 7.5 or 8. pH indicator paper does very well for this test.

The reaction and the character and amount of discharge are of particular importance where the

sperm test indicates spermatocidal action in the vagina.

Vaginal smears are taken at this point, but the technique and significance of this test will be discussed in connection with evidence of ovulation.

A routine bimanual examination is next done to determine so far as possible the general state of the pelvic viscera as regards size, position, adhesions, mobility, and the presence or absence of pain and tenderness. It is also well to satisfy ourselves before proceeding to subsequent tests that the patient is not already pregnant since it would be very embarrassing to destroy an early pregnancy in seeking the cause of supposed sterility.

If in measuring the uterus we find it is frankly infantile, that is, if the cervix is longer than the body of the uterus, we can be pretty sure of the cause of the trouble. In such a case all of the gonadal organs are probably hypoplastic, immature, and hypofunctioning. This means not only an unsuitable site for implantation, but probably an absence of ovulation.

Simple hypoplasia of the uterus suggests a similar disorder, but less severe and with a better prognosis. In hypoplasia the uterus may be quite small but the normal size relationship remains, that is, the length of the cavity of the uterus approximates twice the length of the cervical canal.

If no strong contrary leads have been found at this point, we digress slightly from the logical order of consideration of factors involved in causation of sterility, and because of the ease and simplicity with which it can be done at this stage of our examination, we attempt to make sure there is no obstacle to the meeting and union of the spermatozoa and ovum.

Two methods are available for this purpose. One consists in the injection of a gas through the uterine tubes into the peritoneal cavity relying upon alterations in pressure to indicate that the gas has passed through and beyond the fimbriated end of the tube. The other consists of actual visualization of the cavity of the uterus and the opening of the tubes by the injection of an opaque oil followed by X-ray pictures.

For the first method there are several more or less elaborate machines designed to supply the gas and measure the pressure. But a reasonably satisfactory substitute can be devised by almost any practitioner who has a blood pressure manometer. The cuff is simply disconnected from the manometer and a length of tubing is attached in its place. The free end of this tube is then supplied with a Y tube, one arm of which is then connected by more tubing to the manometer bulb and the other by a third length of tubing to the uterine cannula. The cannula is now a familiar instrument, the most satisfactory type of which has a bulbous acorn built right into the instru-

ment about two inches from its end. The tip of the cannula is slipped through the previously cleansed cervix exposed by a speculum. The pressure is then pumped up gradually to 100 mm. If this pressure is maintained it is again pumped up to a slightly higher level. This process is repeated until it becomes apparent that there is some obstruction to the passage of air somewhere above the end of the cannula, or until a pressure usually not to exceed 180 mm. is reached. In experienced hands it may be safe to go to considerably higher levels if due caution is exercised. If the tubes are patent, even though the cannula acorn is held snugly against the cervix, the pressure will not be maintained.

Further checks upon the passage of air consists of hearing a bubbling sound through a stethoscope held on the abdomen over the tubal region, or of having the patient experience pain under the shoulder blade upon assuming an upright position. It is important that no considerable amount of air be injected into the peritoneal cavity. On the other hand when employed with discretion this technique would appear to be about as satisfactory as the more elaborate methods.

Air is absorbed somewhat more slowly than CO₂ which is often used. On the other hand objection to the use of air on the ground that it is not sterile seems rather specious in view of the fact that no particular caution is exercised to filter or exclude air from the peritoneal cavity in the operating room.

The use of lipiodol is a little more positive in many ways, particularly in that the results of the tests are actually visualized, and there seems to be less opportunity for artifacts or misleading findings. In using the iodized oil the technique consists simply of attaching the cannula to a 10 cc. syringe filled with the oil and injecting it into the uterus under firm and steady but gentle pressure, and then snapping the picture with the cannula still held in place. If the tubes are not occluded, small droplets of the oil will be seen to accumulate in the peritoneal cavity below the fimbriated end of the tube, and in addition the passage through the tube will be visualized as a fine line on the film.

Injections of air or oil should not be done in the presence of infection, nor within a week of hemorrhage or curettage. These two methods may be inferior to the more elaborate routines with machines devised for that purpose, but none the less discretely employed they seem to be quite safe and are the source of much valuable information.

The next thing to be determined then is whether or not ovulation is taking place. Information on this must be largely inferential inasmuch as it is manifestly impossible to find the ovum, but we do have at our disposal several sources of helpful information. In the order of

the ease of procurement these are the history, vaginal smears, basal body temperature, endometrial biopsy, blood estrin, and pregnandiol excretion.

The history of normal menstruation as regards interval, duration, and amount is suggestive of normal ovulation, particularly if the cervix and uterus are of normal size and a filiform bougie can be passed beyond the internal os. It is to be repeated that such a situation suggests normal ovulation. It does not prove it.

Vaginal smears which have long been used to determine estrus in animals are now being used with some success in humans. The proper time for taking these smears is a week or ten days premenstrual. The technique in making and staining the smears is rather simple. While a number of methods are used, it seems to produce entirely satisfactory results if an ordinary cotton-tipped applicator is rubbed over the vaginal wall and a smear made on a glass slide. This slide is allowed to dry in air and then is stained with fuchsin. After staining the slide is rinsed with tap water and is allowed to dry. A gross deficiency of follicular activity is indicated by the presence of small round or oval epithelial cells with large darkly-staining nuclei. Leucocytes and erythrocytes are also present. In the face of normal follicular activity we get so-called physiological vaginal smears which should consist of large flat clearly outlined squamous epithelial cells with small deeply-staining nuclei. None of the cells present in the other type smears should be present.

Degrees of deficiency between the normal amount of hormone and the marked deficiency are indicated by the relative numbers of these two types of cells on any given slide.

Basal body temperature is another device helpful not only in indicating that ovulation takes place, but showing when it does, which is also quite important. To do this the patient is instructed to take a rectal temperature on herself at the same time every morning and before getting out of bed. The thermometer is left in place for five minutes and then read accurately and a daily record of the readings is kept. After two or three months these daily records are graphed. It is believed that the basal body temperature hits a low mark at the time of ovulation, and in a great many cases this seems to prove out. Occasionally it would appear to be entirely undependable, either due to some peculiarity of the individual or to technicalities such as inaccuracy in taking and reading the temperature.

Endometrial biopsy may be easily and safely performed in the office. It is essential to be sure that the patient is not pregnant, and for this reason the time selected may be after menstruation appears. Ordinarily it is just a day or two premenstrual, but a midmenstrual or ovulation-time biopsy is also desirable. When such a biopsy

is to be taken the patient must have impressed upon her the importance of using an absolutely reliable contraceptive for an entire month beforehand. The actual technique of the biopsy is simple. A suction curette is attached to an ordinary syringe, the cervix is cleaned and painted with an antiseptic, and the curette introduced into the cavity of the uterus. As the curette is gradually withdrawn continuous suction is made on the plunger of the syringe. Ordinarily about four pieces of tissue are removed, one from each wall of the uterus, and each time the curette is withdrawn its contents are expelled into a bottle of formalin in which it is delivered to the laboratory for section. Ordinarily following this procedure the patient has no discomfort whatever, and proceeds to her regular activity without any interruption.

When the endometrium shows a normal lutein phase just premenstrual, it can almost be assumed that a follicle has ripened, an ovum been cast out, and a corpus luteum formed. A normal follicular phase of endometrium taken mid-menstrual supports this other evidence.

A blood estrin determination is also helpful, but rather technical and hard to procure. The test should be run four to six days premenstrual. It requires 40 cc. of blood, and because of the technique involved the blood is best drawn in the laboratory that is to make the determination.

The pregnandiol determination is done on a 24-hour urine specimen. The general idea behind this test is as follows: pregnandiol is the end product from the metabolism of the progestational hormone of the corpus luteum, that is, it is the substance excreted in the urine as a result of the action of the endometrium on progesterin. The test is rather complicated and still not available for regular clinical application, but the absence or an insufficiency of pregnandiol indicates either failure of luteinization or improper response by the endometrium, which in turn suggests either that no ovum is available for fertilization, or circumstances are not suitable for good implantation.

Conversely a normal output of pregnandiol tends to indicate first that ovulation has taken place, second that normal luteinization has followed, and third that the endometrial response is favorable for implantation.

Thus far we have been following a routine where no lead has been found. To go back now slightly, suppose the uterus was somewhat small or the periods scanty or infrequent. This is suggestive of ovarian hypofunction which may be primary or may possibly be due to inadequate stimulation from the pituitary. Finding a normal pregnandiol value tends to exonerate both ovaries and pituitary. Failure to make such a finding suggests that one or the other of the above types of ovarian hypofunction must be

dealt with. Prolan determinations when available are a help, but a sugar tolerance test may also indicate the level of pituitary activity.

The test is quite simple, and although not fool proof, is valuable. A fasting blood sugar is drawn with the patient under basal metabolic conditions. She is then given a glass of lemonade containing 50 grams of glucose. Thirty minutes later another blood sugar is drawn and another 50 grams of glucose and lemonade are given. Again in 30 minutes the blood sugar is drawn for the third and last time. If pituitary activity is normal the first blood sugar should be within normal limits, the second should be about 70 mgms. higher than the first, and the third should be within about 10 mgms. of the second. The theory behind this is that the pituitary normally inhibits the pancreas allowing the blood sugar to rise. If the blood sugar fails to rise or rises only slightly, it is because the pancreas is not sufficiently inhibited which is quite often due to pituitary hypofunction. On the other hand an excessive or continuing rise is suggestive of excessive inhibition of the pancreas which is apt to be due to pituitary hyperactivity, and a possible explanation for an overactive pituitary is an underactive ovary since estrin inhibits pituitary activity.

The basal metabolic rate probably should be determined in every case and certainly it must in those cases of endocrine etiology since the sex glands like most of the endocrines are inextricably tied up with the thyroid and its dysfunctions are invariably reflected to some extent in the other glands.

Passing all of these tests it is reasonably safe to assume in the majority of cases that conception can take place, and implantation will probably follow. Early abortion remains then as an obstacle to consummation of the pregnancy. Information on this will of necessity be derived chiefly from the history. There is apt to be an account of known abortions or of delayed or painful periods coming on under somewhat unusual circumstances often following the early symptoms of pregnancy. In other words, patients sometimes think they are sterile and subject to menstrual irregularities when actually the trouble is habitual abortion. Conversely, patients sometimes give a history of habitual abortion when actually they are sterile and are suffering from membranous dysmenorrhea. For this reason it is well in such cases to submit what appears to be pieces of placenta to a pathologist for microscopic examination.

Failing to find any apparent cause of infertility with this routine it should be assumed, temporarily at least, that the woman can conceive, and a six to eighteen months further trial should be given with special emphasis on periods of sexual rest, followed by intercourse in the

period of greatest fertility, from twelve to sixteen days before the onset of the next expected period.

By no means has the last word therapeutically been spoken in these disorders, but treatment in the light of our present knowledge for disturbances discovered in the foregoing diagnostic routine might be outlined as follows:

Absence of spermatozoa—no treatment.

Deficiency of spermatozoa—sexual rest, intercourse not oftener than twice monthly, vitamin E and thyroid extract should all be tried. However, the new hormone extracted from the blood of pregnant mares (gonadin, gonadogen, anteron) probably offers the greatest hope in this condition.

Hostility of vaginal secretions may be overcome by the removal of genital foci of infection and correction of cervical erosions or ulcerations and by treatment of endocervitis and endometritis.

Genital hypoplasia is often benefited by prolonged dosage in large amounts of the anterior pituitary hormone. Prolan A made from the anterior lobe of the pituitary gland should be given for the first two weeks of the cycle of menstruation, and Prolan B, the pregnancy urine hormone, should be given for the last two weeks of the cycle. If there is any evidence whatever of hypothyroidism, thyroid extract should also be given. Dosage of the pituitary hormone should be at least 1000 units weekly, and the patient should understand the expense of such therapy and the futility of inadequate dosage and too brief periods of treatment. After three or four months of such treatment directed at stimulation of the ovary, substitution therapy may be given a trial. For this purpose 10,000 units of follicular hormone weekly should be given for the first two weeks of the menstrual cycle, followed by one to two units of lutein hormone weekly for the last two weeks. After one or two months of this, ovarian stimulation should be returned to and pregnancy attempted.

A newer and perhaps more potent form of ovarian stimulation is provided by the gonadotrophic hormone prepared from the serum of pregnant mares. Where the evidence indicates ordinary hypo-ovarianism, 100 Cole-Saunders units are given every other day for the first twelve days of the menstrual cycle. On the other hand, if the follicles apparently ripen but do not rupture, a better method is to give 200 units daily for the three days immediately preceding the time of ovulation as indicated by methods previously outlined. Such treatment should be repeated monthly for several months.

If the sugar tolerance test indicates probable pituitary hypofunction, the preceding routine may be given a trial, or direct stimulation of the pituitary by X-ray can be used. This method in

the hands of a competent roentgenologist seems perfectly safe, and has a good record of effectiveness. The dosage used for this purpose is 25 Roentgen units on the skin which deliver an estimated 8 units to the gland itself. This treatment is given on alternate days until four doses have been given. The treatment is given at 5 milliamperes, 140 kilovolts through 1 mm. of copper and 1 mm. of aluminum using a 6x8 aperture at 50 cm. focal skin distance.

X-ray stimulation of the ovaries also is sometimes used, but we have as yet been somewhat dubious about this procedure, although there appears to be an increasing volume of evidence to indicate that there is no danger.

If there is obstruction to the passage of the ovum, insufflation with the Rubin machine may overcome it. Surgery is occasionally used in appropriate cases, and many times inflammatory lesions seem to yield to Elliott treatments.

If blood estrin tests or endometrial biopsy indicates ovarian insufficiency, the routine mentioned for genital hypoplasia may be beneficial, or here again is a good place to use the hormone of pregnant mare serum.

In conclusion, be slow to make a diagnosis of sterility, don't give up hope, the last word therapeutically hasn't yet been said, and treatment of apparently hopeless cases that can afford it—but with a guarded prognosis—has a good psychic effect on the patient and may be more successful than you anticipate. Lastly, do not be afraid to work on these cases yourself, for the female sexual endocrinology is confusing at the present time even to the experts.

Tuberculosis Mortality

Tuberculosis mortality acts something like a social barometer, rising during wars, and rising highest in the countries most affected by the war. It is difficult to prophesy what the present war will mean in increased tuberculosis mortality in the belligerent countries, but we may be sure that it will be once more a true barometer of disturbed social conditions. Countries which are making the greatest efforts, which are keeping their industries keyed up to the highest pitch, working their men the longest hours and reducing standards of living to the lowest levels are bound to suffer severely.—Frank C. Boudreau, M.D., News Digest of the Milkbank Memorial Fund, June 1940.

Voles, a species of wild rodent common in England, are subject to epidemics caused by a hitherto undescribed type of tubercle bacillus. The strain is relatively avirulent for rabbits and guinea-pigs and its protective action is now being studied.—Editorial, British Med. Jour., Aug. 1940.

Anent Pronunciation of Medical Words

How would you pronounce these words?

Adult	Ramus	Maxilla
Research	Nomenclature	Axilla
Cocci	Trichomonas	Protein
Chiroprapist	Duodenum	Discharge
Abdomen	Ouabain	Epiphyseal
Autopsy	Endocrine	

All of us have heard one or more of these words mispronounced. Indeed, it is likely that not one physician in a hundred pronounces all of them correctly. Yet the dictionaries agree on but one correct form:

a-dult'
re-search'
cok'-si (not cok'-ki)
ki-ropodist (not sheer-opodist)
abdo'-men
au'-topsy (the first syllable is definitely accented)
ray'-mus (the *a* is long as in *date*)
no'-menclature (not nomen'-clature)
trikom'-onas (the accent is on the second syllable—believe it or not)
duode'-num (not duod'-enum)
wah'-bah-in (three syllables, not two)
en'-docrine (not en'-docrine)
maxil'-la (not max'-illa)
axil'-la (not ax'-illa)
pro'-te-in (three syllables, not two)
dis-charge' (not dis'-charge)
epifiz'-eal (not epifi-se'-al)

Following are some additional words commonly mispronounced, but which have only one correct form:

	<i>Don't Say</i>	<i>Say</i>
angina	angi'-na	an'-gina
ascaris	ascar'-is	as'-caris
raphe	ra'-phe'	ra'-phe
umbilicus	umbil'-icus	umbil'-cus
tricophyton	tricophy'-ton	tricoph'-yton
acetyl	ase'-tyl	as'-etyl
foramen	forah'-men (short <i>a</i>)	fora'-men (long <i>a</i>)
prosthesis	prosthe'-sis	pros'-thesis
tinnitus	tin'-itus	tini'-tus
eustachian	eustash'-ian	eustak'-ian
vitaligo	vitile'-go	vitili'-go (long <i>i</i>)
proteid	pro'-teid	pro'-te-id
rigor	rig'-or	ri'-gor (long <i>i</i>)
opisthotonos	opisthoton'-us	opisthot'-onos
cerebral	cere'-bral	cer'-ebral
caffeine	caf'-eine	ca'-fe-ene (three syllables)
paresis	pare'-sis	par'-esis
data	datta	da'-ta (long <i>a</i>)
status	stattus	sta'-tus (long <i>a</i>)

—Maxwell Thebaut, M.D., Oakland, Calif.; Jour. Ind. S. M. Assn.; Vol. 33, No. 11, November, 1940.

The Use and Abuse of Cesarean Section

D. D. FORWARD, M.D.

ONE of the most controversial subjects in the practice of obstetrics is when and when not to do a cesarean section. The spectacular character of the operation has given it wide publicity among the laity, and the relative ease of performance has been a great temptation to the often perplexed accoucheur as the easiest way out of an obstetric dilemma. The operation has therefore been done for unwarranted indications, but, happily, due to modern technique, usually with a successful outcome.

For centuries following the time when Jacob Nufer, the castrator of pigs at Sigerhausen, Switzerland, successfully delivered his wife by abdominal section after a dozen midwives and barbers had failed to effect a delivery from below, cesarean section has been resorted to as a last forlorn method to salvage something from a hopeless labor. As might have been expected the results were appalling, and, as Harris pointed out even as late as 1878, it was better for the pregnant woman's abdomen to be ripped open by the horn of an infuriated bull than to have a cesarean performed by the surgeons of that day.

It was only when Porro of Pavia, Italy, proposed amputation of the uterus with fixation of the stump to the abdominal wall, that better results began to be obtained. Today Porro's operation with some modification is performed in an effort to combat that greatest of all dangers—infection.

Six years after Porro's contribution Säger proposed closing the uterine incision by suture, and because this operation saved the uterus, it was designated the conservative cesarean section in contra-distinction to Porro's radical section which sacrificed the uterus. Many and varied have been further modifications of the conservative operation, but as the conservative operation is still the one that is most universally performed, this paper will deal entirely with it.

With improvements in technique came increasing safety, so that indications for its use were rapidly broadened, till today cesareans are performed in great numbers throughout the world for almost every conceivable reason, whether on the kitchen table of the isolated farmhouse or on the swanky operating table of the luxurious hospital.

Indeed so widely has the operation been advertised to the laity that it is not unheard of for

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the prospective mother, fearful of the pains of childbirth but unacquainted with the dangers of an abdominal section, to ask her obstetrician to deliver her by cesarean section.

Such an attitude should be discouraged; for it must be pointed out that the mortality from cesarean section is by no means negligible and far outweighs the dangers of delivery from below. Welz pointed out in 1925 that cesarean section in Detroit was 20 times more dangerous than other types of delivery.

Numerous statistics have been printed as to the number of cesareans performed throughout the nation. Most of these have come from the larger cities. A few of the more recent are as follows: Barrett¹ reports 20,127 births at Woman's Hospital, New York, for 15 years. In this number there were 912 cesarean sections, an incidence of 1 in 22. Average for private patients was 1 in 18, average for ward was 1 in 29. Maternal death rate was 2.96 per cent, infant death rate 6.69 per cent.

In Massachusetts in 1937, DeNormandie² found that of a total of 63,988 births there were 2106 abdominal deliveries, an incidence of 1 in 30. Maternal mortality rate was 3.1 per cent.

Daily³ reports in seven years at the Chicago Lying-in Hospital that 18,009 patients were delivered with 1000 cesareans, an incidence of about 1 to 18. The maternal mortality was 0.8 per cent.

According to Duffy⁴ at St. Ann's Maternity Hospital, Cleveland, Ohio, in 13 years there were 15,998 deliveries with 262 cesarean operations, an incidence of 1 to 61. The maternal death rate was 4.5 per cent. According to Duffy 13 hospitals of Cleveland reported 11,631 deliveries in 1937 with 450 cesareans, or an incidence of about 1 to 25. The maternal mortality was 3.12 per cent.

The above statistics are enough to indicate how widespread an operation the cesarean has become in the larger centers. It will now be interesting to discover the trend in a small com-

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munity like Ashtabula, Ohio, having a population of 22,000.

In the 12-year period 1928 to 1939 inclusive, Ashtabula General Hospital, the only hospital in the community, reported 1705 births, 130 of which were cesareans. This is an incidence of 7.6 per cent or about 1 in 13. Maternal deaths were seven, or 5.3 per cent. Fetal deaths were 15, or 11.5 per cent.

Table 1 indicates in detail the year by year figures.

TABLE I

Year	No. Births	No. Cesarean Sections	Incidence in Percent	Maternal Deaths	Percent	Fetal Deaths	Percent
1928	134	11	8.2	1	9.0	1	9.0
1929	128	7	5.4	1	14.2	1	14.2
1930	132	3	2.2	1	33.3	0	0
1931	88	9	10.2	0	0	0	0
1932	99	10	10.1	0	0	2	20.0
1933	95	12	12.6	1	8.3	1	8.3
1934	102	12	11.7	0	0	1	8.3
1935	108	10	9.2	0	0	1	10.0
1936	150	10	6.6	0	0	0	0
1937	201	16	7.9	0	0	1	6.2
1938	218	15	6.8	1	6.6	4	26.0
1939	250	15	6.0	2	13.3	3	20.0
Total	1705	130	7.6	7	5.3	15	11.5

It must be pointed out that hospital delivery in a small community is not nearly so frequent as in a large city. Therefore it is really fairer to compare the total number of cesarean operations in the Ashtabula General Hospital to the total number of births in the community as shown in Table 2.

TABLE II

Year	No. Births	Cesarean Sections	Incidence in Percent
1928	475	11	2.3
1929	449	7	1.5
1930	436	3	0.7
1931	364	9	2.4
1932	360	10	2.7
1933	334	12	3.5
1934	353	12	3.3
1935	337	10	2.9
1936	367	10	2.7
1937	384	16	4.1
1938	416	15	3.6
1939	428	15	3.4
Total	4703	130	2.7

We see that in the 12-year period in Ashtabula city there were 4703 births of which 130 were cesareans, an incidence of 2.7 per cent or 1 in 36. This figure compares favorably with the figures previously given for the State of Massachusetts, 1 in 30.

Principal reasons for cesarean section in the Ashtabula General Hospital were as follows: contracted pelvis 40, toxemia and eclampsia 37, placenta previa 9, premature separation of placenta 7, previous sections 5, fibroids of uterus

5, elderly primipara 4, previous history of difficult labor with dead baby 3; other reasons were rupture of the uterus, cardiac decompensation, hydro-cephalic monster, and sometimes no reason at all was given. Cause of maternal deaths were eclampsia 3, pneumonia 1, hemorrhage 1, infarction 1, sepsis 1.

In the light of the above statistics it is difficult to decide whether cesarean section was utilized too often as an easy way out of obstetric difficulties. Very likely some of the maternal deaths may have been caused either because cesarean section was resorted to, too late or because cesarean section was not the best way of delivery.

Only good obstetrical judgment can determine what procedure is safest for both mother and baby, the mother receiving the first consideration except in unusual cases. As Newell⁵ points out, "Whenever cesarean section offers any advantage to either patient over vaginal delivery then cesarean section should be the operation of choice." But, if possible, the one to make this decision should be the trained obstetrician, because only he can weigh the possibilities impartially.

The abuse of the operation comes primarily from those who, because of insufficient knowledge or training, decide on its use through faulty obstetrical judgment, or by those who feel themselves unqualified to do some of the more intricate obstetric maneuvers, but who feel thoroughly qualified to do a classical cesarean section.

To combat such a state of affairs the contra-indications for cesarean section should be most vigorously stressed.

The contra-indications most often ignored are three in number. Briefly cesarean section should not be done:

- (1) If there have been vaginal examinations.
- (2) If membranes have been ruptured for more than four to six hours.
- (3) If operative attempt has been made to deliver from below.

Vaginal examination even under the strictest technique is almost certain to carry infection to the uterus if the examining fingers extend beyond the cervical opening, and if they do not extend that far then there is no need to do a vaginal examination because a rectal examination can give all the necessary information. If the doctor knew that by doing a vaginal examination all thought of a cesarean section must be put away, obstetrical situations would be more carefully analysed, and many needless operations would not be done.

Concerning the second contra-indication there can be but little controversy. Since Williams first showed that bacterial invasion of the uterus almost surely occurred within six hours following breaking of the membranes it would be

hazardous indeed to perform a cesarean operation after that period.

If an operative attempt has been made to deliver from below, then it is little short of suicidal to do a cesarean. I know of but two cases where such a thing was tried, and both ended in disaster.

Some indications for cesarean section are highly controversial and must depend on the good judgment of the obstetrician. No definite rules can be set up. Each case must be decided on its individual set of conditions. A few case histories may be cited in illustration.

Case 1.—B. S., white girl, Para I, age 17, seven and one-half months pregnant, brought to the hospital because of increasing edema and albuminuria. Blood pressure on admission 166/104, albumin 4+ with many granular casts and some red blood cells. History: Normal pregnancy to about one week before admission when swelling of feet and ankles and face was first noted. A week's rest in bed under strict diet brought some reduction in edema. Blood pressure was reduced to 140/85, but albuminuria still persisted. Late one night patient complained of slight headache, and nurse thought edema was increasing. Early in the morning patient had two convulsions. Morphine, glucose and magnesium sulphate were administered. Blood pressure had risen to 148/90. Fetal heart sounds 140. While patient and baby were in good condition a cesarean was decided upon, and was immediately performed. Uneventful recovery. Baby weighed 3 pounds, 13 ounces and did well.

Induction of labor which in all probability would have been quite long, would have produced more convulsions, perhaps death for the mother and most probably death for the baby.

Cesarean section may be justified on the grounds of an unfavorable previous history as the following illustrates:

Case 2.—P. P., white female, age 34. Twelve years before while in Texas after a long, difficult labor was delivered of a dead baby. Cervix and perineum severely lacerated. Two years previous to present pregnancy she aborted at three months. She was exceedingly anxious this time to have a live baby. Prenatal period uneventful. Labor began with a high posterior position and slight bleeding. Remembering the previous difficult labor, fearful the life of the child might be endangered through a premature separation of the placenta or a marginal placenta previa, as indicated by the bleeding, and believing that her chances of carrying through another pregnancy to term were none too good, a cesarean was decided upon. Living female child obtained. Uneventful recovery. One year later cervix and perineum were repaired.

Finally, to illustrate a case where cesarean section should have been performed, but was not, the following is cited:

Case 3.—C. B., Para I, white, age 31, few days overdue. Labor induced by castor oil and quinine. Labor 36 hours. Head still above brim, but it could be forced in. Three fingers dilatation. Cesarean was considered, but because of fairly normal measurements was rejected. A vaginal examination revealed a slightly flattened pelvis with a constricted outlet. The baby did not seem large, and, as the position was posterior, a ver-

sion was decided upon. After thinning out the cervix manually, the version was performed. Forceps were applied to the after coming head, and with great difficulty and with a laceration into the rectum the baby was finally extracted. It was necessary to inject epinephrin into the heart and use all methods of resuscitation for an hour or more before the baby breathed properly. As for the mother, two operations were necessary before a good perineum was obtained.

Here in a borderline case we erred, I believe, on the side of conservatism. Cesarean section would have been less damaging to the maternal health and would not have jeopardized the life of the baby.

In conclusion we may state that cesarean section at the proper time and under the proper conditions is a great health and life saving operation, but used injudiciously as the easiest way out of an obstetrical dilemma it is fraught with danger, as shown by the maternal mortality rate. The use as well as the abuse of this operation is increasing. One of the principal ways of combating the abuse of cesarean section is to stress over and over again the contra-indications we have mentioned.

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Toxoid Reactions

From December, 1938, through March, 1939, 11,326 school children from kindergarten through 4B, 6 to 11 years old and attending schools in the Washington Heights and Riverside districts, were immunized against diphtheria. Of these, 6,822 children who had been immunized three or more years ago received a supplementary injection of 1 cc. of diphtheria toxoid. The balance (4,504) were children who had no record of previous immunizations and, therefore, received two injections of diphtheria toxoid of $\frac{1}{4}$ cc. and 1 cc. two weeks apart.

In our experience with the administration of diphtheria toxoid to school children no alarming reactions were observed. Presumably, administration of diphtheria toxoid is not associated with any danger even when given in amounts of 1 cc. Reactions in children 9 years of age and over are more frequent than in the younger age groups. While the Moloney test may be indicated in some cases, one fails to see its necessity in mass immunizations of school children, recognizing that the reactions requiring home visits occurred only in $\frac{1}{2}$ of 1 per cent of those inoculated.—Jacob H. Landes, M.D., New York City; N. Y. State Jour. of Med., Vol. 40, No. 21, Nov. 1, 1940.

Congenital Deformity of Trachea

J. J. MAREK, M.D.
Cleveland, Ohio

The case is that of a female infant born about one month prematurely, by breech delivery. The mother was in good health and had had an uneventful pregnancy. She had one other normal child.

Immediately after delivery the infant's heart tones were of good quality, but all attempts to stimulate respiration were unsuccessful. A laryngoscope was inserted and an attempt made to pass a tracheal catheter. This could not be done because of some obstruction. A tracheotomy was attempted but the trachea could not be found. The infant expired 20 minutes after delivery.

At autopsy the trachea was seen to end as a blind sac just below the larynx. The esophagus was normal throughout, but about three centi-

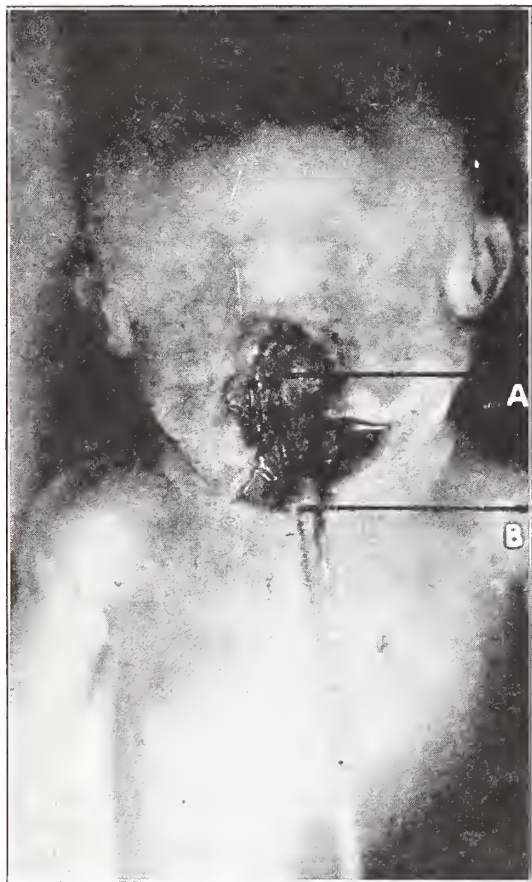


Fig. 1. (a) Closed lower end of larynx. (b) Esophagus.

meters above the diaphragm it had a small orifice which opened into both main bronchi. The lungs were normally developed and partially expanded. The infant was otherwise normal except for a deformity of the right thumb.

Embryologically the earliest indication of the future respiratory organs in the fetus is the laryngo-tracheal groove which runs lengthwise

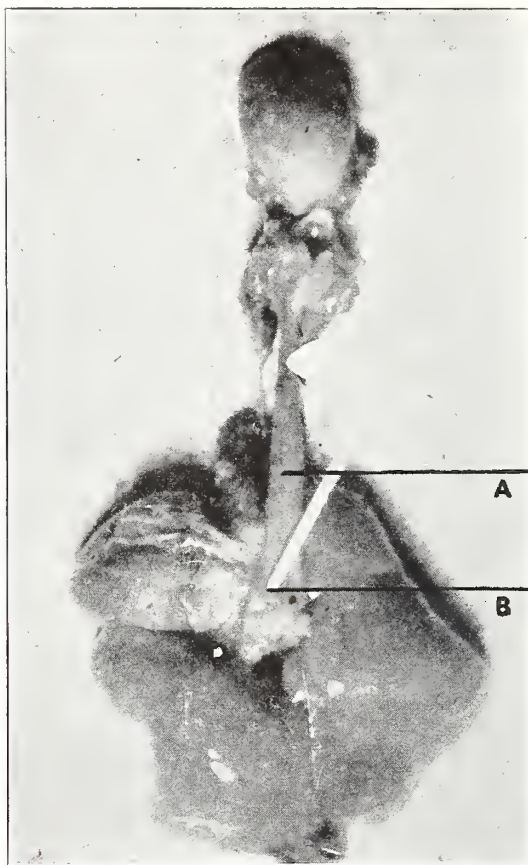


Fig. 2. (a) Esophagus. (b) Probe in esophageal-bronchial fistula.

in the floor of the gut. Externally a ventral ridge is seen which gradually separates from the esophagus. The separation progresses in a cephalic direction and the lung bud is the first part to become free. Most anomalies of the respiratory organs are due to an incomplete separation of the early laryngo-tracheal groove from the gut.

Fritz in 1933 reported a similar case of congenital atresia of the Trachea in the German literature. However, in this case the opening from the esophagus into the bronchi was at a higher level, approximately at the usual level of the bifurcation of the trachea.

Payne in 1900 reported a congenital absence of the trachea. In this case there was no opening into the esophagus, the two bronchi being connected with each other by a slender cross-passage. Below the larynx there was nothing but a triangular piece of cartilage with the apex downward.

Approximately 300 cases of congenital deformities of the trachea and esophagus have been reported in the literature. However, most of these consist of a congenital atresia of the esophagus with a tracheo-esophageal fistula. Congenital atresia of the trachea is extremely rare.

The Anemias of Infancy and Childhood

CLARE R. RITTERSHOFER, M.D.

AN easy approach to the diagnosis of anemias in children is the consideration of anemias as they occur at the various age periods of infancy and childhood.

In the newborn period the anemia of prematurity must be considered first of all. The normal full term infant always shows a considerable drop in the hemoglobin after birth, the lowest level being reached at about two to three months of age. This is followed by a rise in the second three months of life and then if a sufficient quantity of iron is not available, a renewed fall. Premature infants gain relatively more rapidly than full term babies during the first year, and the hemoglobin percentage is usually considerably lower than that of full term babies at the second month. It is because of the relatively more rapid gain in the weight that the iron deposits are insufficient and lead to an iron deficiency anemia although this does not usually occur before the end of the third month. In severe cases the treatment consists of blood transfusions; otherwise, the administration of iron is sufficient.

Anemia of the newborn, *icterus gravis neonatorum* and universal edema of the newborn are three closely associated disorders of the newborn period each characterized by a greater or lesser degree of anemia. A familial tendency is commonly found.

Universal edema of the fetus or congenital fetal hydrops is a relatively rare condition, characterized by generalized edema, enlargement of the liver and spleen, and edema and hypertrophy of the placental tissues. Anemia and jaundice are usually present. The disease reaches its greatest severity in utero and generally results in a still-born edematous premature infant.

Icterus gravis neonatorum is featured by severe and often fatal jaundice within the first two or three days of life, the result of profound hemolysis of the red cells, or of deficiency of an anti-hemolytic factor. The jaundice is more intense and persists longer than the ordinary physiologic jaundice of the newborn. The vernix caseosa and amniotic fluid are usually stained yellow. The disorder is not associated with infection, syphilis or congenital abnormality of the biliary tract. Among the findings are drowsiness, convulsions, subcutaneous hemorrhages, and a tendency to bleed from the mucous membranes.

The jaundice is usually associated with a severe hemolytic anemia. In many cases nucleated red cells are found in the blood stream. Bilirubin is increased in the blood serum and an excess of urobilin and urobilinogen is found in the urine. The spleen is often enlarged. If the infant survives the initial hemolysis, blood regeneration proceeds rapidly enough to balance the destruction of red cells. Occasionally such infants develop degenerative changes in the basal ganglia as a result of staining with the bile pigments. This condition is known as *kernikterus* and symptoms of cerebral malfunction due to this may develop soon after an apparent recovery from *icterus gravis neonatorum*. These manifestations include muscular spasticity, mental retardation, athetosis, convulsions and emotional instability. In short, any baby born with a jaundiced skin and placental tissues, and yellowish amniotic fluid is destined to develop anemia. Such a baby should be watched carefully every day and should be promptly transfused when an anemia develops. The indication for repeated transfusions is further drops in the hemoglobin.

Congenital anemia of the newborn is the mildest disorder of the group. Its only constant and characteristic symptom is a severe anemia occurring shortly after birth in an infant in whom the accepted causes of secondary anemia can be excluded, such as sepsis, syphilis, and hemorrhagic disorders. Nucleated red cells may or may not be found in the blood smears. Mild jaundice, enlargement of the liver and spleen, and islands of blood forming tissue in extra medullary tissues may occur. The treatment consists of the administration of blood intravenously or the injection of human blood serum. The former is preferable.

PHYSIOLOGIC ANEMIA

Physiologic anemia occurs at two to three months of age. Increased blood destruction has been assumed to be the factor responsible for the fall in hemoglobin but to it must be added a delayed blood formation which does not become predominant until the fortieth or fiftieth day. Both the red cell count and hemoglobin values are reduced at this time. This reduction has been called a physiologic drop and requires no treatment.

At four months of age the anemia of syphilis is frequently encountered. The diagnosis can be made by the clinical evidences of the disease, X-ray or the serology. The treatment is that of the underlying disease.

From six months to two and a half or three

Dr. Rittershofer was selected to write an editorial summary on the above topic by a committee of ten leading Ohio pediatricians.

From the Department of Pediatrics, University of Cincinnati, and the Children's Hospital Research Foundation.

years the most common anemia is an iron deficiency anemia, sometimes called the nutritional anemia of infancy. The blood picture is similar to that of any other iron deficiency anemia. The hemoglobin is always reduced; the red cell count may be high, normal or low. The color index and the mean hemoglobin content per cell are low. The red cells are small in size and this change occurs earlier than the drop in the hemoglobin concentration. Clinically one can recognize an iron anemia in infants with hemoglobin values below 10 gm., but those above that value are often missed. Other changes in the red cells are the central pallor and variation in size and shape. The spleen may be enlarged. These children are particularly prone to develop infections of the alimentary and respiratory tracts and these infections, in their turn, appear to intensify the anemias by making it more difficult for the body to assimilate iron. It is probably advisable to provide every child at four or five months of age with additional iron as a prophylactic measure. It may be given as a 12 per cent aqueous solution of iron and ammonium citrate, 2 to 3 drams daily, in the milk. Ferrous sulfate in doses of 6 to 8 grains may be given to the infant; and 10 to 12 grains to the older child. Other iron preparations used are ferric pyrophosphate, reduced iron and saccharated ferrous carbonate. Organic preparations of iron are not to be used. Very few cases require copper since most of the iron preparations contain copper as an impurity.

CONGENITAL HEMOLYTIC JAUNDICE

Congenital hemolytic jaundice is a chronic or recurrent type of anemia associated with a relatively mild icterus becoming accentuated during crises of hemolysis. Other characteristics are: splenic enlargement, an increase in the amounts of urobilin in the urine and stools, increased fragility of the red cells in hypotonic salt solutions, elevation in percentage of reticulocytes in the circulation out of proportion to the degree of anemia present, and a tendency for the red cells to be small and globular. In small children the jaundice may not be so prominent a symptom, whereas the anemia may become so severe, especially during crises of hemolysis that death may result from lowering of the red cell and hemoglobin levels and subsequent anoxemia. Infants and children are more sick than jaundiced. The spleen may become so enlarged that it fills the left side of the abdomen. Other symptoms are the frequent occurrence of severe abdominal pain accompanied by vomiting and some fever during the hemolytic crises of the disease. The differential diagnosis of congenital hemolytic anemia from an acute surgical condition may be difficult, especially if jaundice is not too prominent and if the blood picture is not appreciated. The younger the patient at the time

of the first crisis of hemolysis, the more severe the disturbance tends to become. Death may occur during an attack, even during the first, and a hemolytic crisis may be quickly followed by all the symptoms of acute and fatal hemorrhage. Early splenectomy for these cases is indicated even though a hemolytic crisis is occurring at the time.

THE ANEMIA OF SCURVY

The anemia of scurvy is easily diagnosed because of the accompanying evidences of the disease. The treatment consists in providing adequate amounts of Vitamin C.

Sickle cell anemia should always be suspected in a colored child who has either anemia or an enlarged spleen or both. The diagnosis is made by finding red cells with a sickling tendency. This is best accomplished in moist preparations. The spleen is enlarged early in the disease due to overactivity in removing excessive numbers of abnormal cells from the circulation. Splenectomy may help the anemia but the patient continues to have some anemia after removal of the spleen. The sickling trait still persists after splenectomy.

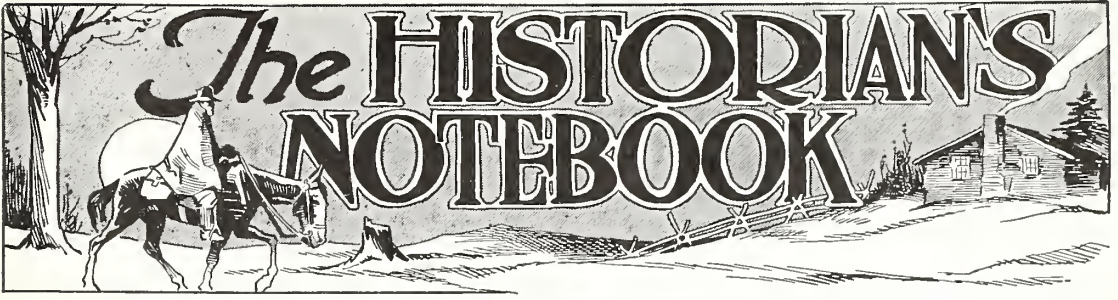
Anemias which follow acute infections should be treated with inorganic iron preparations for a period of several weeks. It may be necessary to use blood transfusions in severe cases.

Acute hemolytic anemias secondary to an infection, drug or unknown agent usually have a sudden onset, fever, a rapidly progressing anemia and slight jaundice. Repeated transfusions are indicated.

Aplastic anemias are quite rare. They may follow infection or prolonged drug therapy—particularly the coal tar derivatives, or they may be due to an unknown factor. The chief features are a reduction in all the components of the bone marrow, red and white cells and platelets. Bleeding from the mucous membranes may be very troublesome. There is no known effective remedy for the disorder.

Anemias that accompany the leukemias are usually macrocytic in type. Their diagnosis depends on the recognition of the underlying disease. The treatment is repeated transfusions although this is only a temporary measure because of the steady downward progress of the leukemia.

Tuberculosis is a disease of long duration and may have many phases. It may be acute, but is more often chronic with periods of quiescence followed by exacerbations and so continue for many years. Patients discharged from the sanatorium should be considered as having completed only the first phase of treatment.—Henry D. Chadwick, M.D., and Helen Evarts, Amer. Rev. of Tuberc., March, 1940.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

The Health of Frontier Ohio

PAUL M. DAVIS AND PHILIP D. JORDAN*

THE land-hungry pioneer who came into Ohio about 1800 marched directly into a challenging wilderness; for the region between Lake Erie and the Ohio River was largely a wild and free area. Forests and other natural growths were for the most part intact. Swamps and mud holes were yet to be drained, and with each spring thaw or heavy summer rain, hundreds of creeks and rivers left their banks and swept over adjoining lowlands. As the first settlements were usually placed near streams for commercial purposes, they were often inundated.

The unfortunate location of many of Ohio's first villages occasioned a great deal of intense criticism in pioneer days. One commentator, himself an immigrant to the West, found it regrettable that so many towns were settled by men "preferring convenience or profit to salubrity." He was convinced, he said, that the unhealthful situation of Chillicothe, Lancaster and Zanesville would work great havoc upon the inhabitants.

Another settler remarked that the Cincinnati of 1895 was "a dirty, and, what some persons will scarcely believe, a marshy place." "Fifth Street," he said, "was an alder swamp." A visitor to Gallipolis in 1807 found that town "fast declining, most of the inhabitants having removed in consequence of the sickness of the place;" and at the other end of the state, a traveler noticed that Sandusky was "very unhealthy, owing to the badness of the water." There was undoubtedly some justification for such remarks, for Ohio's first town-sites were inauspicious places, and the streets and backlots of the villages were littered with trash and garbage.

At some distance from the unclean settlements lived the pioneer farmer, plagued with floods,

swamps, and abounding insects. To many persons, both in the country and in the towns, the climate was disagreeable. The change from one season to the next was usually both rapid and great. Such conditions, then, both rural and urban, combined with almost a total absence of preventive means, laid the inhabitants of frontier Ohio open to the ravages of disease.

An indication of the prevalence of disease is given in the ominous generalizations of travelers who had opportunity to observe conditions in the various sections of the United States. The Ohio River was often the subject of discourses on the unhealthfulness of the state. Settlers who lived along the river were frequently remembered for their "pale and sallow cast of countenance." The aspect of the situation which focused the blame on the river was the observation that as one traveled away from that region into the hill country of Kentucky, the inhabitants were found to have fresher, fairer complexions and more imposing figures. Condemnation of the frame of the Ohioan must have been common in that day. An Englishman remarked in 1818 that, judged by English standards, there was in Ohio "a want of sound regular health. . . ." It was demonstrated, he said, by the "tall, vaulty aspect" of the people. A traveler who came into Ohio about the same time believed that the climate in the new state was far inferior to that of New England. He based his decision on "the general appearance of the inhabitants." While prejudice and ignorance undoubtedly produced many unjust remarks concerning the health of frontier Ohio, the consistency of various criticisms leaves little doubt that the Ohio of pioneer days was a disease-ridden state.

Cholera was the most severe, though not the most prevalent disease of the area. It took various forms, some more dangerous and extensive

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than others. For many years, the frontiersman knew it best as "cholera morbus," though he recognized a related form, "cholera infantum," which affected children. "Cholera morbus" was an affliction the settler feared, but it was mild compared to the dread Asiatic cholera which struck Europe in 1830. During the first days of April, 1832, Paris papers reported the appearance of the scourge, and though French physicians pronounced it non-contagious, the disease spread amazingly fast. In a little more than two weeks the terrible malady killed more than 7,600 persons in Paris. Americans were startled by the experience of that city, but surprise quickly turned to genuine anxiety when London reported 1,371 deaths by May 12. By that time, both laymen and physicians were debating the likelihood of an invasion of the North American continent. The disease had crossed mountain and plain in its mad rush across Europe, and now on every hand arose the anxious query, "Could it span the ocean, too?" The answer was not long in coming, for on June 23, 1832, word reached the United States that the cholera had appeared at Quebec and Montreal. Five immigrants standing on the wharf at Quebec had been suddenly attacked with pains and sickness of the stomach. Two of them died on the way to the hospital. That this was the real Asiatic cholera was soon evident, for an afflicted servant woman died within three hours, and a merchant lasted but six. New York, Philadelphia, Baltimore, and other coastal and border cities began frantic preparations to exclude all immigrants and to enforce strict sanitary measures.

On June 30, a Baltimore paper optimistically reported that the cholera had not yet appeared in the United States. Americans began to take hope, and though active provisions for preventing its appearance were continued, there was a growing conviction that the awful terror had at last been checked. The last week in June passed, and the cholera failed to appear. When the first days of July also slid by uneventfully, there was a pronounced feeling of security. Then it struck. Like an angry, raging wind it hit New York and drove onward to Philadelphia. By July 21, Detroit had felt the wrack of the scourge, and soldiers there deserted and fled. On the fifteenth of August, New York reported the total number of cases as more than 5,000—deaths 1,968.

The inhabitants of Ohio should have been resigned to their fate when the cholera appeared at Dover and Sandusky. There seemed no staying the hand of death. The epidemic quickly swept over Ohio, Kentucky and Virginia, and continued toward the Mississippi, where it struck in October. By this time, there were few persons willing to disagree with the man who said that the cholera "is here and everywhere, a demon that

rides upon the wind, and dives into every corner of the earth."

The scene in Ohio was not pleasant. The city clerk of Cincinnati reported 117 deaths by "epidemic cholera" in a single week; and a German prince who had intended to visit that city passed by when informed by a physician that the cholera carried off about 40 persons daily. The disease affected nearly every Ohio settlement, and rural families were not spared. As winter drew near, the epidemic began to abate, and its ravages gradually ceased.

In 1833 it appeared again, and was nearly as severe as in the first invasion; it was undoubtedly worse in some places. One report stated that one-third of the population of Columbus had fled to remote places. In three months, citizens of the town buried nearly one hundred cholera victims. Hamilton, Chillicothe, Lebanon and Troy were among the many other settlements afflicted, and Cincinnati was in the throes of the disease for many weeks.

The year 1834 saw the cholera strike again. This time, however, it was observed that the attack was less violent than in previous visitations. The omen was accurate, for the disease did not appear the next year. Two more years passed, and the Panic of 1837 took the Ohio settler's mind off bodily ills. By 1840, the epidemics were becoming history, and it seemed that the terrible invader had at last receded. In reality, the cholera was only lying in wait. After fifteen years of quiet, it swept the West again. This was in 1849, and this time it struck the cities along Lake Erie with a vengeance. Conditions in the lower half of the state must have been as serious as in the lake towns, for an observer remarked that the disease was at its height "in the hot month of July, yet great fires were made in some streets with the idea of driving off the poison; but the disease went on with its fearful fatality, and the 'long funerals blackened all the way.'"

The horror with which the Ohio frontiersman looked on cholera is not unnatural, for the havoc it inflicted on the human body was more than many sufferers could bear. When a settler was attacked by Asiatic cholera, the first indication he had that the awful disease was tampering with his body was an inward burning and an intense desire for cold drinks. Within a short time, vomiting occurred, accompanied by intestinal spasms and marked slowing down of the circulation. Soon the victim's eyes began to sink into his skull, and within three or four hours the sufferer was often dead.

Various reasons were assigned for the occurrence of cholera. Many Ohio settlers believed that it was carried on the wind, and there was a version which held that cholera occurred when the gaseous and ethereal fluids of the air were

thrown out of balance. An application of the "miasmatic" theory of disease was found in the belief that cholera was caused by effluvia, or miasms, that is, poisons, which arose from the unclean or the sick, or from the bowels of the earth. A newspaper article of 1832 attributed several cases of cholera to the eating of certain foods. Among the condemned nutriment were currants and crabs, which had caused deaths; plums, watermelons, baked beans, green grapes, and cold rice pudding merely produced symptoms.

The confusion caused by Asiatic cholera seems not to have been confined to wild speculations about causes, for a prominent Cincinnati doctor observed that hasty burials in cholera cases had undoubtedly led to "the burying of those who were only in a state of suspended animation."

If the early Ohio settler was fortunate enough to escape the sinister cholera, or a premature burial if he had the disease, there remained plenty of other ailments to plague him. Perhaps most prevalent and troublesome of the diseases of frontier Ohio were the various kinds of fever. To the pioneer, fever was as unpredictable as the weather, for it might appear as "intermittent" fever, as a bilious attack, a "remittent" fever, a chill and fever, or as a form of ague. And even ague could show up as shaking ague, dumb ague, fever and ague, or just plain ague. The towns of Ohio were subject to fever epidemics, and many times the disease in this form spread out from the settlements and struck the farmer in his lonely cabin. Before the cholera invasion of 1832, Ohio had experienced three severe epidemics of fever. In 1809, 1822, and 1823, the disease was general throughout the state. At various other times, fever attacked particular settlements and took an imposing toll—more in time and labor lost than in deaths. But in spite of the violence of epidemic fevers, the scattered individual cases which occurred year in and year out were of far more importance to Ohio's pioneers. The early settler had so many fevers and gave them such varied names that it is next to impossible to discover exactly what he did have; but it seems relatively certain that most of his fevers and agues were malarial forms of varying intensity.

As in the case of cholera, speculation concerning the cause of fevers was a common pastime. One prominent theory held that the heavy fogs along the Ohio River were responsible. Another view, and one which conformed to the usual attitude toward disease, was that which adhered to the miasmatic theory; that is, it was believed that poisons in the air gave rise to fevers as well as other afflictions. Those poisons might arise from stagnant water or decomposing mud, and particularly in the autumn from decaying plants.

Another disease to which queer causes were

assigned was influenza. It was an affliction which often reached epidemic proportions, but the frontiersman seemed less concerned about it than he was about most of his other ailments. Among the naive explanations of the origin of influenza was that which blamed its occurrence on "the sudden melting of snows in the mountains."

Goitre seems to have occurred occasionally in Ohio, particularly in the eastern part of the state, and it was held by many settlers to be the result of "a particular state of the atmosphere."

Other diseases of Ohio in the first half of the nineteenth century were typhoid fever, which was reported epidemic in the winter of 1816-17, colds, catarrh, and pneumonia. Pioneer families complained far less about these afflictions than they did about the more severe and spectacular diseases like cholera and fever. Pleurisy and rheumatism seem also to have been moderate, as were scarlet fever, epilepsy, small pox, and apoplexy.

Tuberculosis was probably the stealthiest of all frontier diseases, and for that reason it was not considered a serious problem by the early settler. Because it worked so quietly, tuberculosis was often exceedingly destructive, and many pioneer sufferers dosed themselves with quack medicines "guaranteed to cure all forms of phthisic."

Other common ailments were typhus fever, which killed many adults, especially in poorly ventilated quarters, cholera infantum, that is, cholera as it affected children, dysentery, jaundice, and diarrhea. "Sick stomach" was a constant frontier problem, and "hooping cough" and dropsy were not uncommon. As might be expected in a period when even the "Saturday night" bath was not yet a custom, itch, scrofula, eruptive skin diseases, and worms, both internal and external, were persistent afflictions.

One of the most baffling of all frontier diseases was "milk sickness," so named because the early Ohio settler was convinced that it occurred in both cows and men. The symptoms of the malady were extreme constipation and nervousness, accompanied by torturing trembles. The disease seemed to be common in particular localities, and though many attempts were made to analyze it, an observer remarked that "physicians and others who have tried to determine its cause have had no success."

It is not surprising that "milk sickness" and a host of other ailments continued year by year to take a heavy toll of Ohio's first settlers. Water supplies were impure; preventive medicine was as yet undeveloped; and common health habits of a later day were unknown to the frontiersman. Both the insidious penetration of tuberculosis and the bold invasion of cholera found easy victims, and the graveyards of pioneer Ohio bore silent testimony to the fact.

Hundreds of Ohio Physicians Volunteer to Examine Draftees; Many Others On Active Duty at Training Camps; Medical Phases of the Selective Service System Are Analyzed

CLOSE to 900 Ohio physicians with a civilian status were serving in some capacity with the Selective Service System in this state as this issue of *The Journal* went to press.

These doctors are serving in one of the following capacities: Medical examiner for a local draft board (there are 330 such boards in Ohio), alternate (assistant) examiner, member of local draft board, member of local advisory board, member of district appeals board, local appeal agent, or member of district Medical Advisory Board.

In addition to those physicians who are serving in a civilian capacity, there are several hundred Ohio physicians in active military service, being

now on active duty, although an effort has been made to obtain information from all available sources.

STATUS OF PHYSICIANS UNCERTAIN

How many Ohio physicians will be called for active service with the peace-time army is unknown at this time. Reports from Washington have indicated that between 8,000 and 9,000 physicians will be needed for the army of 1,300,000 men which the War Department hopes to have in training camps by mid-Summer. There is a possibility that Ohio may be called upon to furnish several hundred additional physicians for the conscription army. Doubtless, the ma-

We'll Try to Keep Up With the Parade

An effort will be made by The Journal to keep Ohio physicians accurately informed on the operation of selective service in Ohio and about the status of the medical profession in the national defense program. However, readers should keep in mind that developments are taking place rapidly—almost daily—and that new orders and regulations are being promulgated as conditions warrant. For that reason, The Journal, being a monthly publication, which must go to press at least 10 days before the date of issuance, will not be able at all times to give complete spot coverage. Supplemental information will be found from week to week in The Journal of the American Medical Association, the preparedness section of which should be read carefully each week by all physicians.—The Editor.

stationed at the various army training camps or on duty with the recruiting service for the Navy Department.

LISTS OF NAMES ASSEMBLED

Approximately 60 Ohio physicians are stationed at Camp Shelby, Hattiesburg, Mississippi, where the Thirty-Seventh Division, Ohio National Guard, is in training. The medical regiment is in command of Colonel Harry D. Jackson, Circleville. In addition to Ohio medical reserve officers on duty at Camp Shelby, approximately 65 medical reservists from Ohio are in active service at other army or at navy posts.

Appended to this article are the names of physicians serving in some capacity with the Selective Service System, those on duty with the Ohio National Guard, and those serving with the army or navy at miscellaneous military posts. These lists may not include all Ohio physicians

majority of them will be taken from the medical reserve corps. At present enlistments in the regular army medical corps and the medical reserve corps are not being encouraged but reports indicate that as the selective service gets well under way, opportunities will be offered to physicians to apply for commissions and enter a year's training. Should any physician be drafted it is quite likely that he will immediately be assigned to a training school for medical officers and given an opportunity to qualify for a commission.

ASSOCIATION'S COMMITTEES HELP

Medical personnel for the Ohio draft boards and Medical Advisory Boards was recommended by the Ohio State Medical Association through its Committee on Medical Preparedness, under the chairmanship of Dr. Harry V. Paryzek, Cleveland, and the committees on medical preparedness of Ohio's 88 county medical societies. At the re-

quest of Governor Bricker, the Association undertook the big job of nominating physicians for the positions of examining physician and alternate examiner and for the district medical advisory boards. After the names had been assembled, pursuant to contacts with local preparedness committees, the lists were submitted to Governor Bricker. Appointments were made by President Roosevelt, or by the Governor in the case of the advisory boards, as provided in the Selective Service Law and regulations.

Also, the State Association has been cooperating with General Gilson Light, head of Selective Service in Ohio, and Lt. Col. Howard E. Boucher, chief medical officer, on details and in making adjustments in the medical personnel where necessary due to a few resignations or to meet unusual geographical problems in a few counties.

ESTIMATES ON NUMBER OF DRAFTEES

Just how much work will be required of the medical examiners of the 330 local draft boards is anybody's guess at this time. Ohio's quota of draftees on the first call was less than 1,000—about three men per local board on the average. This demand will be met for the most part from enlistments among registrants.

General Light has announced that Ohio's net quota of draftees for the first year of the Selective Service will be approximately 52,500. It is expected that the next Ohio call may approximate 10,000, these men to be sent to training camps shortly after the first of the year. If enlistments continue at the present rate, this figure may be reduced materially, thus lightening the duties of local draft boards and medical examiners. It is difficult to know from day to day just how many Ohio men will have to be drafted and how much work will be required of local boards and their medical personnel as quotas will have to be revamped periodically on the basis of credits for enlistments.

Official notice of appointment has been sent by General Light to Ohio's medical examiners and assistant examiners. The medical examiners will be expected to do the examining of draftees but assistants may be used where there is some peculiar geographical situation, illness or absence of the examiner, or the work becomes too strenuous for one examiner. Medical examiners will serve without pay as do members of draft boards, appeals boards, appeals agents, and medical advisory boards.

HOW CLASSIFICATION WORKS

Not all registrants called before local draft boards will be assigned to medical examiners for a physical examination. Before physical examinations are ordered, the board must determine the status of registrants with respect to other provisions of the Selective Service Law. Only men who are assigned to Class 1 ("avail-

able for general or limited military service") will be ordered to report for physical examination. In other words, men who are disqualified because they are necessary in civilian activity, because they have dependents, or for other reasons enumerated in the law, will not be ordered to appear for physical examination. If a

WRONG INFORMATION CIRCULATED

Because of misunderstanding, some local draft boards have given examining physicians the impression that all men registered with the board will have to be examined immediately.

This is not the real situation. Local boards have been advised by State Selective Service Headquarters that only enough men should be examined from time to time to enable the board to meet its quota of draftees. For example, if a board has a quota of six draftees, it should order only enough men examined to enable the board to certify six registrants who meet the physical standards. This procedure should be followed each time the board gets another quota. Obviously, this means that only a small portion of registrants will have to be examined to meet any one quota. Also, men are not to be ordered in for physical examination until after the board has decided that they are not entitled to exemption for other than physical reasons.

registrant fails to pass the physical examination, he is placed in Class 4-F—the group found unfit for general or limited military service. So, it is apparent that the work of medical examiners will not be as heavy as registration figures would indicate.

According to instructions which have been issued by General Light and Colonel Boucher, physical examinations may be made by the examining physician in his office or at the offices of the draft board. This is a procedure left to the discretion of the examining physician. It has been suggested to examining physicians in larger municipalities that they may organize examining groups or teams for the examination of large groups of registrants at some central station or in examining rooms located in various sections of the city. This need not be done but may be done if the examining physicians and their respective draft boards believe the arrangement is feasible and desirable.

DETAILS ON EXAMINING PROCEDURE

Detailed information and instructions pertaining to physical standards governing the examination of registrants, examination procedure,

special examinations, supplies, etc., are found in Volume 6, Selective Service Regulations, copies of which have been distributed to medical examiners by Colonel Boucher. Also, kits of ordinary supplies have been assembled at the State Selective Service Headquarters and are being sent to local draft boards where they will be made available to examining physicians. Each kit will contain denatured alcohol, cotton, wood applicators, wood tongue depressors, tape measure, clinical thermometer, hypodermic syringe, hypodermic needles, test tubes, Benedict's solution and urinometer. Other supplies which may be needed by the examining physician may be supplied by the local draft board if circumstances warrant, according to the regulations.

The physical standards governing the examination of registrants are similar to those used by the army and navy in accepting enlistments. As stated in the regulations: "The objective is to procure men who are physically fit for the rigors of general service. The registrant must be able to see well; have comparatively good hearing, have a heart able to withstand the stress of physical exertion; be intelligent enough to understand and execute military maneuvers, obey commands, and protect himself; and be able to transport himself by walking as the exigencies of military life demand." Detailed explanations of these standards are set forth in Volume 6, Selective Service Regulations.

In special cases, the examining physician may recommend that special examinations and laboratory tests be provided. These may be authorized by the chairman of the local draft board but an effort will be made, according to Colonel Boucher, to keep such special examinations at a minimum and on the basis of actual need.

TESTS FOR SYPHILIS

Section 615 of the Selective Service Regulations, Volume 6, provides that a serological test for syphilis shall be made as a part of the physical examination given a registrant. That section reads as follows:

"a. Whenever the history or the physical examination of a registrant indicates the possibility of venereal disease, the matter shall be thoroughly investigated, employing such additional examinations and laboratory tests as are deemed necessary to determine the presence of disqualifying sequelae or of contagiousness. A serological test for syphilis shall be made on every registrant as part of his physical examination. The blood specimen will be taken by the examining physician in containers furnished by the State Health officer and forwarded to the State Laboratory or other laboratory designated by State Selective Service Headquarters, together with the accomplished forms prescribed within the State for such purpose. A second serological test shall be completed promptly and prior to his call for induction on every registrant whose first test is reported positive. The dates and results of such

examinations and tests shall be noted on the Report of Physical Examination (Form 200).

"b. A diagnosis of syphilis shall not be made on the basis of a single positive serological test in the absence of definite clinical manifestations of the disease.

"c. A diagnosis of latent syphilis shall be made on a registrant who has no clinical manifestations of the disease, but whose blood serum has been found positive by a second serological test performed under these regulations and within three months of the first positive serological examination.

"d. Syphilis shall be considered contagious only in the presence of skin or mucous-membrane lesions manifested within five years from the date of infection."

In explanation of Section 615 upon inquiry by the Preparedness Committee of the American Medical Association, Clarence A. Dykstra, national director of selective service, issued the following statement:

"No man with acute or chronic venereal disease will be accepted for military service. For administrative purposes selective service will consider two positive serological tests performed within three months to be evidence of latent syphilis and to be cause for rejection."

This is the official interpretation of Section 615 at the present time. Whether it will need modification in the light of experience is problematical.

LABORATORY SET UP IN COLUMBUS

Responsibility for making the serological tests for syphilis in connection with selective service in Ohio has been undertaken by the State Department of Health. A plan has been worked out by Dr. R. H. Markwith, state director of health, under which the tests will be performed in Columbus at the State Health Department Laboratory which has been enlarged for this purpose. Blood specimens drawn by the examining physicians in all parts of the state will be examined by the laboratory in Columbus. Tubes for the mailing of specimens are being supplied by the State Department of Health to the local draft boards where they will be made available to examining physicians. Each tube will be accompanied by a report blank which must be filled out in part by the draft board and in part by the examining physician. After completed the blank should be placed in the mailing tube together with the specimen and the tube should be mailed immediately. Each tube will carry the address of the Columbus laboratory and will carry a special franking label, making postage unnecessary. After the specimen has been examined at Columbus, the report form will be filled out and returned to the local draft board, marked for the attention of the examining physician. The laboratory report is to be treated as confidential.

In order to facilitate the prompt reporting of specimens, it will be necessary for the examining physician to provide information for each item

on the laboratory form. Results of the laboratory examination will be reported in one of the following ways: positive, doubtful, negative, or specimen unsatisfactory. A bulletin dispatched to local examining physicians by Dr. Markwith contains the following warning: "All syringes and needles used for taking the blood must be sterilized by boiling and not by the use of alcohol or other chemical sterilizing agents. Failure to observe this precaution will result in many blood samples unfit for testing. At least 5 c.c. of blood should be submitted for the test."

After the examining physician has received a report on the serological examination, he may then complete Physical Examination Form 200 for the registrant under examination by inserting information regarding the laboratory examination, and then return Form 200 in duplicate to the local draft board. The board at that point will be ready to pass final judgment on the registrant as to whether or not he is qualified for military service.

APPEAL MAY BE FILED

In event the examining physician is in doubt about a registrant's physical qualifications, the physician may request the local draft board to send the registrant to the Medical Advisory Board for that area for special examination. Also, the local draft board may send a registrant to a Medical Advisory Board for special examination if it is dissatisfied with the finding of the examining physician. In event the government appeal agent requests it, the local board must send a registrant to an advisory board for an additional physical examination. If passed by the Medical Advisory Board after appeal, a registrant may ask for a review of his status by the district board of appeal in event he is still of the opinion that he is unfit for military service. The decision of a board of appeal is final.

On the advice of Colonel Boucher, after conferences with the Committee on Medical Preparedness of the State Medical Association, Governor Bricker has appointed 18 Medical Advisory Boards. (See list of members of such boards appended.) These boards are composed of internists, surgeons, eye, ear, nose and throat specialists, orthopedists, neuropsychiatrists, clinical pathologists, roentgenologists, and dentists, serving without pay. A board as a whole, or one or more members of a board, as may be necessary in particular cases, shall act on cases submitted on appeal from draft boards within the area served by the advisory board. In making its report, the advisory board uses a portion of Form 200 referred to previously.

INDUCTION STATIONS

After a registrant has been found by the local draft board to be acceptable for active service, the board will order him to report to an induc-

tion station where the registrant will be given another, and final, physical examination, and if found acceptable, will be inducted into the military service.

In all probability Ohio draftees will be inducted into the service at induction stations to be established at Fort Hayes, Columbus; Fort Thomas, Kentucky; and sub-stations to be established at Cleveland and Toledo. The physical examinations at the induction stations will be made by army

Physicians who desire to volunteer for service at induction stations, referred to in the accompanying article, should file their names with the Committee on Medical Preparedness of the Ohio State Medical Association, 79 East State Street, Columbus, or with the American Medical Association, 535 North Dearborn Street, Chicago, setting forth their specialty or special qualifications for such examination work.

physicians and civilian specialists who are willing to volunteer for limited-duty service at the induction posts. Physicians volunteering for examinations at induction centers may have to give full or part-time service over a period of several weeks or several months. For that reason they will be paid at the rate of the base pay for majors in the regular service, with allowance for travel and subsistence while on duty.

Information published during the past few weeks in *The Journal of the A.M.A.* reveals that the Health and Medical Committee of the National Defense Council is making progress in its efforts to coordinate the medical resources of the country in the interests of national defense. Sub-committees on medical education, hospitals, industrial medicine, industry, nursing, and Negro health have been appointed. Also, the National Research Council has established a Division of Medical Sciences which has named committees covering various fields vital to the preparedness program.

NATIONAL COMMITTEES NAMED

Dr. C. Sidney Burwell, dean, Harvard Medical School, Boston, was named chairman of the sub-committee on medical education of the Health and Medical Committee of the National Defense Council. Other members of this group are Dr. L. R. Chandler, Stanford University Hospital, San Francisco; Dr. Harold S. Diehl, dean of the University of Minnesota Medical School; Dr. Willard C. Rappleye, commissioner of hospitals of the city of New York; and Dr. John H. Musser

ANOTHER APPEAL FOR PREPAREDNESS QUESTIONNAIRES

As this issue of The Journal went to press, preparedness committees in each county were canvassing physicians who have not filled out and returned a Medical Preparedness Questionnaire to the American Medical Association. Several thousand Ohio physicians have not done so, causing Ohio to lag in the return of questionnaires in comparison to other states of the Fifth Corps Area.

Every Ohio physician should fill out one of the questionnaires regardless of status, age or physical condition. If in the service now, a physician should furnish that information on the questionnaire. Likewise, the questionnaire should be filled out by physicians who have retired because of age and by those who are physically incapacitated, so the A.M.A. will have a record which can be used for reference.

Obviously, these data will be valuable to the War Department in event it needs physicians with special training for carrying out emergency measures, making possible the use of medical personnel in a way that it can be of the most value.

On the other hand, by getting his name in the preparedness file of the A.M.A., a physician will have some assurance that he will be assigned to duties for which he is qualified in event the present situation develops into a real emergency. Such duties may not necessarily be service with the military forces but might possibly involve assignment to localities where medical personnel is needed to care for the civilian population and war industries employees.

A physician does not obligate himself in any way by signing the A.M.A. questionnaire. In doing so he merely supplies valuable data which can be used in event of a national emergency and protects himself against being assigned to duties which are incompatible with his training and qualifications.

of the Tulane University of Louisiana School of Medicine, New Orleans.

The sub-committee on hospitals includes Dr. Winford H. Smith, director of Johns Hopkins Hospital, Baltimore, chairman; Rev. Alphonse M. Schwitalla, president, Catholic Hospital Association of United States and Canada, St. Louis; Dr. Malcolm T. MacEachern, associate director of the American College of Surgeons, Chicago; Dr. Claude W. Munger, chairman of the defense committee of the American Hospital Association, New York; and Dr. Nathaniel W. Faxon, superintendent of the Massachusetts General Hospital, Boston.

The sub-committee on industrial medicine was set up with Dr. Clarence D. Selby, medical consultant of General Motors Corporation, Detroit, as chairman. Other members of this sub-committee included Prof. Philip Drinker, Harvard School of Public Health, Boston; Dr. E. C. Holmblad, Chicago; Dr. George M. Smith, Yale University Medical School, New Haven, Conn.; Dr. Lloyd Noland, chief surgeon, Tennessee Coal, Iron and Railroad Company, Fairfield, Ala.; Dr. William P. Yant, Mine Safety Appliance Company, Pittsburgh, and Dr. A. J. Lanza of the Metropolitan Life Insurance Company, New York.

Miss Mary Beard, director of nursing of the American Red Cross, was named chairman of a sub-committee on nursing, and Dr. M. S. Bousfield of the Julius Rosenwald Fund, Chicago, will head a sub-committee on Negro health.

The general committee has already had two meetings and, in addition to setting up its various sub-committees, has considered the need for developing research projects dealing with special problems of military medicine and hygiene. Examples of such special problems are finding better methods of treatment of war wounds, exploring the most modern usages of recently discovered chemicals in the treatment and prevention of disease, problems of aviation medicine, and the most effective measures for the control of the venereal diseases.

The committee is also concerned with the necessity for providing health services in areas surrounding military camps and cantonments and with the health and medical problems resulting from greatly expanded industrial development in certain regions of the country.

RESEARCH PROJECTS STARTED

The various committees of the Division of Medical Sciences of the National Research Council include the Committee on Chemotherapeutic and Other Agents, composed of sub-committees on Infectious Diseases, Venereal Diseases, Tropical Diseases and Surgical Infection, and the Committee on Transfusions with sub-committees on Blood Substitutes and Shock.

The Committee on Medicine has sub-committees on Cardiovascular Diseases, Tuberculosis, Metabolism, Medical Nutrition, Clinical Investigation and Therapeutics. The Committee on Medicine

has been making a survey of laboratory procedures for military hospitals and has given advice on the Mobilization Regulations.

The Sub-Committee on Medical Nutrition has made recommendations to the Quartermaster Corps of the Army and the Supply Corps of the Navy concerning the sufficiency of vitamins in rations. The nutritional needs of the whole population have been discussed and recommendations made for restoring vitamins to flour.

Among the subjects under consideration by the Sub-Committee on Clinical Investigation are fatigue, altitude and barometric pressure studies, night blindness and dark adaptation, clothing for high and low temperatures, and gas poisoning.

The Committee on Surgery includes sub-committees on Anesthesia, Radiology and Wound

Healing. The surgical specialties are organized under a coordinating committee which correlates the activities of the other groups. One of its chief tasks is the evaluation of specialist personnel. The sub-committees on the surgical specialties are on Neurosurgery, Faciomaxillary (pertaining to the face and upper jaw) and Plastic Surgery, Otolaryngology (ear and throat), Vascular (blood vessel) Injuries, Thoracic (chest) Surgery, Orthopedic Surgery, Physical Therapy, Urology, and Ophthalmology.

The Committee on Information, with its sub-committees on Publicity and Historical Records, and the Committee on Aviation Medicine complete the Division's setup. One other general committee is in process of organization, that on Neuropsychiatry.

PHYSICIANS SERVING AS EXAMINERS AND ALTERNATES

Following is a list of physicians who have been appointed medical examiners or alternate examiners (assistants) for local selective service boards in Ohio. The first name in all instances is that of the medical examiner, and where the board number is not given it indicates that the county has only one board:

Adams—Sam Clark, Cherry Fork, Robert Lawwill, Seaman; **Allen**—Bd. 1, E. H. Hedges, Lima, H. L. Basinger, Lima; Bd. 2, J. R. Johnson, Lima, A. N. Wiseley, Lima; Bd. 3, O. S. Robuck, Gomer, M. D. Soash, Bluffton; **Ashland**—Bd. 1, E. L. Clem, Ashland, H. T. Martin, Ashland; **Ashtabula**—Bd. 1, A. J. Pardee, Ashtabula, Wm. Millberg, Ashtabula; Bd. 2, R. B. Wynkoop, Ashtabula, H. A. Tagett, Ashtabula; Bd. 3, Harry K. Lynne, Jefferson, W. T. Lowry, Jefferson.

Athens—Bd. 1, T. H. Morgan, Athens, Byron Danford, Athens; Bd. 2, C. E. Welsh, Nelsonville, L. D. Robinson, Guysville; **Auglaize**—R. C. Hunter, Wapakoneta, Alfred W. Veit, Wapakoneta; **Belmont**—Bd. 1, C. B. Messerly, Martins Ferry, H. G. Harris, Martins Ferry; Bd. 2, Homer E. Ring, Bellaire, J. F. Wilkinson, Bellaire; Bd. 3, C. V. Porterfield, St. Clairsville, L. L. Liggett, St. Clairsville; Bd. 4, P. A. Reeder, Barnesville, Paul G. Modie, Barnesville.

Brown—Frank L. Salisbury, Russellville, R. B. Shelton, Georgetown; **Butler**—Bd. 1, D. M. Skinner, Hamilton, V. E. Roden, Hamilton; Bd. 2, W. A. Davin, Hamilton, H. A. Schirrmann, Hamilton; Bd. 3, M. Millikin, Hamilton, H. F. Deubel, Hamilton; Bd. 4, C. T. Atkinson, Middletown, L. H. Skimming, Middletown; Bd. 5, C. R. Keller, Hamilton, J. F. Bausch, Ross; **Carroll**—Glenn C. Dowell, Carrollton, John H. Murray, Carrollton.

Champaign—L. A. Woodburn, Urbana, M. M. Rhodes, Urbana; **Clark**—Bd. 1, A. A. Gavey, Springfield, J. R. Marquart, Springfield; Bd. 2, I. H. Boesel, Springfield, F. P. Anzinger, Springfield; Bd. 3, M. S. Collins, Springfield, Joseph Webb, Springfield; Bd. 4, R. G. Boehme, Springfield, R. R. Richison, Springfield; **Clermont**—Bd. 1, W. H. Gaskins, New Richmond, O. C. Davi-

son, Bethel; Bd. 2, C. F. Barber, Felicity, A. J. Mastropaola, Batavia; **Clinton**—R. H. Vance, Wilmington, C. E. Kinzel, Wilmington.

Columbiana—Bd. 1, C. H. Bailey, East Liverpool, J. A. Fraser, East Liverpool; Bd. 2, Guy E. Byers, Salem, L. W. King, Salem; Bd. 3, E. B. Egli, Lisbon, Seward Harris, Lisbon; **Coshocton**—Bd. 1, E. M. Wright, Coshocton, S. D. Cohen, Coshocton; Bd. 2, H. H. Schwindt, West Lafayette, R. E. Hopkins, Coshocton; **Crawford**—Bd. 1, R. J. Caton, Bucyrus, C. A. Lingenfelter, Bucyrus; Bd. 2, G. T. Wasson, Bucyrus, H. W. Todd, Galion.

Cuyahoga—Bd. 1, L. Jackson Blair, Cleveland, W. F. Creadon, Cleveland; Bd. 2, Dwight S. Spreng, Cleveland, J. J. Young, Cleveland; Bd. 3, C. E. Steyer, Cleveland, E. J. Stefanic, Cleveland; Bd. 4, W. E. Smith, Cleveland, J. A. Ruetenik, Cleveland; Bd. 5, P. H. Krebs, Cleveland, J. W. Schauer, Cleveland; Bd. 6, E. F. Kotershall, Cleveland, A. J. Gericki, Cleveland; Bd. 7, P. J. Kmiecik, Cleveland, E. Klaus, Cleveland; Bd. 8, Wm. Rigelhaupt, Cleveland, J. A. Filak, Cleveland.

Bd. 9, E. J. Humel, Cleveland, L. W. Potts, Cleveland; Bd. 10, E. L. Russell, Cleveland; Bd. 11, Frank J. Kern, Cleveland, J. A. Neuberger, Cleveland; Bd. 12, M. F. Oman, Cleveland, E. W. Peters, Cleveland; Bd. 13, C. H. Verovitz, Cleveland, C. H. Garvin, Cleveland; Bd. 14, C. A. Holan, Cleveland, J. E. Slivka, Cleveland; Bd. 15, G. C. Sternad, Cleveland, A. L. Dippel, Cleveland; Bd. 16, John P. Wycislik, Cleveland.

Bd. 17, W. N. Macey, Cleveland, S. E. Rosen, Cleveland; Bd. 18, E. E. Beard, Cleveland, J. R. Bell, Cleveland; Bd. 19, John Tucker, Cleveland, C. L. Hartsock, Cleveland; Bd. 20, N. L. Farinacci, Cleveland, M. C. Geraci, Cleveland; Bd. 21, E. A. Marshall, Cleveland, Albert Loveman, Cleveland; Bd. 22, R. O. Egeberg, Cleveland, H. A. Williams, Cleveland; Bd. 23, R. A. Warren, Cleveland, D. M. Keating, Cleveland.

Bd. 24, A. E. Szczytkowski, Cleveland, J. T. Vitkus, Cleveland; Bd. 25, C. C. Crawford, Cleveland, F. J. Clarke, Cleveland; Bd. 26, J. G. Jones, Cleveland, A. C. J. Brickel, Cleveland; Bd. 27,

N. L. Zinner, Cleveland; L. K. Boswell, Cleveland; Bd. 28, H. D. Pocock, Cleveland, D. A. Baumgartner, Cleveland; Bd. 29, E. R. Rinaldi, Cleveland; J. R. Plent, Cleveland; Bd. 30, C. S. Higley, Cleveland, Geo. H. Belhobek, Cleveland.

Bd. 31, S. W. Smolik, Cleveland, A. M. Chatham, Cleveland; Bd. 32, C. F. Garvin, Cleveland, C. A. Black, Cleveland; Bd. 33, T. A. Baldi, Cleveland, Roswell Lowry, Cleveland; Bd. 34, J. W. Conwell, Cleveland, M. B. Taliak, Cleveland; Bd. 35, H. H. Robinson, Cleveland, Myron G. Hill, Cleveland; Bd. 36, H. D. Fowler, Cleveland, J. G. Silber, Cleveland; Bd. 37, F. B. Jaquays, Cleveland, J. R. Ripton, Cleveland; Bd. 38, L. E. Blachman, Cleveland, A. D. Nichol, Cleveland.

Bd. 39, R. H. Dickinson, Cleveland, G. K. Folger, Cleveland; Bd. 40, R. B. Thompson, Cleveland, V. H. Dredge, Cleveland; Bd. 41, E. D. Cumming, Cleveland, G. V. Smith, South Euclid; Bd. 42, E. R. Bailey, Lakewood, J. T. Ledman, Lakewood; Bd. 43, H. A. Romilly, Lakewood, C. L. Graber, Lakewood; Bd. 44, G. H. Mraz, Lakewood, A. V. Boysen, Lakewood; Bd. 45, Edward L. Sherrer, Lakewood, W. B. Johnston, Lakewood.

Bd. 46, Willard P. Bowser, Berea, A. C. Hoffmeister, Cleveland; Bd. 47, C. P. Huston, Cleveland, C. S. Stone, Cleveland; Bd. 48, J. F. Slowey, Cleveland, F. A. Spittler, Cleveland; Bd. 49, W. E. Hill, Cleveland, L. J. Perme, Cleveland; Bd. 50, Lester Taylor, Cleveland, J. A. Garvin, Cleveland; Bd. 51, Virgil Glass, Bedford, Vernon C. Kenney, Chagrin Falls.

Darke—Bd. 1, W. D. Bishop, Greenville, L. N. Shroder, Greenville; Bd. 2, C. I. Stephen, Ansonia, D. G. Carlson, Ansonia; **Defiance**—J. U. Fauster, Sr., Defiance, E. P. Mitchell, Defiance; **Delaware**—M. S. Cherington, Delaware, F. M. Stratton, Delaware; **Erie**—Wm. T. Fenker, Sandusky, E. C. Alexander, Castalia; **Fairfield**—Bd. 1, C. G. Axline, Lancaster, C. W. Brown, Lancaster; Bd. 2, M. E. Nichols, Lancaster, H. M. Amstutz, Lancaster; **Fayette**—A. D. Woodmansee, Washington C. H., Jas. M. Harsha, Washington C. H.

Franklin—Bd. 1, Frank M. Gallagher, Columbus, Ralph A. Laughlin, Columbus; Bd. 2, E. E. Smith, Columbus, Willis B. Merrill, Columbus; Bd. 3, Lester Seligson, Columbus, Elmer M. Kilpatrick, Columbus; Bd. 4, Earl L. Harney, Columbus, Thos. D. Santurello, Columbus; Bd. 5, James J. Hamill, Columbus, Frank Atkinson, Columbus; Bd. 6, Pearl C. Staker, Columbus, Jos. B. Chronik, Columbus; Bd. 7, Robert A. Kidd, Sr., Columbus, Leon Kramer, Columbus.

Bd. 8, Jacob A. Ziskind, Columbus, Howard D. Giles, Columbus; Bd. 9, Fred E. Hall, Columbus, A. B. Walton, Columbus; Bd. 10, J. H. Richardson, Columbus, Lovell W. Rohr, Columbus; Bd. 11, Chester O. Cramer, Columbus, Howard Whitehead, Columbus; Bd. 12, Clement V. Wolfe, Columbus, J. M. Gettrost, Columbus; Bd. 13, Chas. W. Edwards, Columbus, Irvin W. Sherwood, Columbus; Bd. 14, Robert L. Thomas, Columbus, Calvin H. Wyker, Columbus.

Bd. 15, Francis W. Davis, Columbus, Harry E. Secrest, Columbus; Bd. 16, Chas. W. Conley, Columbus, Harry J. Jefferson, Columbus; Bd. 17, John M. Thomas, Columbus, Ernest F. Cox, Columbus; Bd. 18, Ray Brown, Columbus, Wm. F. Drake, Columbus; Bd. 19, Abram J. Shoemaker, Columbus, Frank C. Frailie, Columbus; Bd. 20, Dan J. Whitacre, Columbus, C. M. Valentine, Columbus; Bd. 21, Jos. M. Griffith, Columbus, Harold W. Ward, Columbus.

Bd. 22, John W. Larcomb, Columbus, Jos. S.

Stevens, Columbus; Bd. 23, Jas. W. Reason, Hilliards, Robert K. Edler, Westerville; Bd. 24, Wilbur K. Black, Groveport, Ralph W. Hoffman, Columbus; Bd. 25, Earl H. Ryan, Columbus, Murrell H. Turton, Columbus.

Fulton—W. P. V. Evers, Wauseon, R. W. Reynolds, Fayette; **Gallia**—Geo. A. Barton, Gallipolis, John G. Schwarz, Gallipolis; **Geauga**—Walter E. Cory, Chardon, William A. Reed, Burton.

Greene—Bd. 1, W. T. Ungard, Xenia, H. E. Ray, Xenia; Bd. 2, C. G. McPherson, Xenia, P. D. Espey, Xenia; **Guernsey**—Bd. 1, Henry L. Wells, Cambridge, Charles A. Craig, Cambridge; Bd. 2, M. C. McCuskey, Senecaaville, F. B. Kantzer, Quaker City.

Hamilton—Bd. 1, Karl A. Braun, Cincinnati, H. C. Hyndman, Cincinnati; Bd. 2, Paul D. Grove, Cincinnati, Kent E. Martin, Cincinnati; Bd. 3, Charles T. Perin, Cincinnati, Max C. Labermeier, Cincinnati.

Bd. 4, William F. Sohngen, Cincinnati, Harvey G. Gerdson, Cincinnati; Bd. 5, Samuel W. Herman, Cincinnati, Ward H. Ventress, Cincinnati; Bd. 6, Charles E. Illiff, Cincinnati, C. Roy Steingrube, Cincinnati; Bd. 7, Millard Wallenstein, Cincinnati, Robert L. Johnston, Cincinnati; Bd. 8, E. H. Niesen, Cincinnati, Charles M. Siegel, Cincinnati; Bd. 9, Jerome Zeigler, Cincinnati, M. J. Litwin, Cincinnati; Bd. 10, Mark A. Brown, Cincinnati, Geo. W. McClure, Cincinnati.

Bd. 11, Fred W. Trinkle, Cincinnati, B. M. Alleman, Cincinnati; Bd. 12, Leon J. Renneker, Cincinnati, Arthur K. Joerling, Cincinnati; Bd. 13, Irving H. Schroth, Cincinnati, Edward L. Dulle, Cincinnati; Bd. 14, Eli A. Miller, Cincinnati, Samuel L. Betagole, Cincinnati; Bd. 15, Jos. A. Lindner, Cincinnati, L. W. Gaker, Cincinnati; Bd. 16, Clayton R. Sikes, Cincinnati, Paul V. Hamilton, Cincinnati; Bd. 17, F. H. Miketta, Cincinnati, H. F. Kenkel, Cincinnati.

Bd. 18, R. E. Clarke, Cincinnati, A. J. Elkins, Cincinnati; Bd. 19, Cloyce Wilson, Cincinnati, Anthony Matuska, Cincinnati, J. E. Pettress, Cincinnati, Chas. H. Lightfoot, Cincinnati; Bd. 20, Edwin Khuon, Cincinnati, Wm. A. Teveluwe, Cincinnati; Bd. 21, Melville F. Walker, Cincinnati, Thomas J. Ball, Cincinnati; Bd. 22, Paul J. Graham, Cincinnati, C. W. Pottschmidt, Cincinnati; Bd. 23, Louis E. Cook, Cincinnati, J. H. Thesing, Cincinnati; Bd. 24, J. T. Clear, Cincinnati, Ellis J. Smith, Cincinnati; Bd. 25, Geo. H. Knapp, Cincinnati, A. H. Gellenbeck, Cincinnati.

Bd. 26, Wm. H. Lippert, Cincinnati, Davis Lillard, Cincinnati; Bd. 27, J. V. McGowan, Cincinnati, Fred W. Heinold, Cincinnati; Bd. 28, H. H. Slutz, Cincinnati, Harry T. McFarland, Cincinnati; Bd. 29, Geo. H. Musekamp, Cincinnati, H. R. Fullerton, Cincinnati; Bd. 30, W. B. Carmon, Cincinnati, Joseph Bolin, Cincinnati; Bd. 31, B. C. Simmons, Cincinnati, Rudolph M. Zodikoff, Cincinnati; Bd. 32, E. A. Craig, Cincinnati, DeWitt G. Astler, Cincinnati.

Bd. 33, Howard S. James, Wyoming, T. J. Mohr, Lockland; Bd. 34, Ferris E. Beekley, Sharonville, D. N. Cavanaugh, Reading; Bd. 35, Lee Keidel, Cleves, C. W. Hunsche, Mt. Healthy.

Hancock—Bd. 1, E. E. Rakestraw, Findlay, J. V. Hartman, Findlay; Bd. 2, A. E. King, Mt. Cory, R. N. Lee, Mt. Blanchard; **Hardin**—N. C. Schroeder, Kenton, H. A. Kerns, Kenton; **Harrison**—R. P. Rusk, Cadiz, F. Foster Dye, Cadiz.

Henry—T. P. Delventhal, Napoleon, Chas. Harrison, Napoleon; **Highland**—J. C. Larkin,

Hillsboro, J. C. Bohl, Hillsboro; **Hocking**—H. E. M. Boocks, Logan, Allen A. Cole, Logan; **Holmes**—A. J. Earney, Millersburg, William B. Wild, Holmesville; **Huron**—Bd. 1, L. H. Whistler, Willard; Bd. 2, G. F. Linn, Norwalk, T. H. Smith, New London; **Jackson**—G. A. Parry, Jackson, C. C. Fitzpatrick, Jackson.

Jefferson—Bd. 1, Carl Goehring, Steubenville, S. A. Harris, Steubenville; Bd. 2, John A. Bradley, Steubenville, L. J. Kerschgens, Steubenville; Bd. 3, John W. Metcalf, Toronto; Bd. 4, Fred H. Riney, Mingo Junction, L. B. Lee, Tiltonville; **Knox**—Bd. 1, James F. Lee, Mt. Vernon, O. W. Rapp, Fredericktown; Bd. 2, Julius Shamansky, Mt. Vernon, J. M. Pumphrey, Mt. Vernon.

Lake—Bd. 1, Geo. F. Barnett, Painesville, C. O. Hudson, Painesville; Bd. 2, Burt T. Church, Painesville, V. N. Marsh, Painesville, R. M. Campbell, Willoughby; **Lawrence**—Bd. 1, O. H. Henninger, Ironton, Ralph F. Massie, Ironton; Bd. 2, Cosper Burton, Ironton, Chester A. Casey, Ironton; **Licking**—Bd. 1, Wm. H. Morgan, Newark, H. A. Campbell, Newark; Bd. 2, R. W. Jones, Newark, W. E. Shrontz, Newark; Bd. 3, C. J. Loveless, Granville, E. H. Johnston, Alexandria.

Logan—R. B. Pratt, Bellefontaine, F. B. Kaylor, Bellefontaine; **Lorain**—Bd. 1, Waite Adair, Lorain, Hugh Amos, Lorain; Bd. 2, Charles R. Meek, Lorain, A. T. Grills, Lorain; Bd. 3, George D. Nicholas, Elyria, W. H. Hull, Elyria; Bd. 4, Frank R. Dew, Oberlin, R. W. Bradshaw, Oberlin; Bd. 5, James A. Schurgot, Grafton, John W. Boss, Birmingham.

Lucas—Bd. 1, N. J. Seybold, Toledo, K. R. Howard, Toledo; Bd. 2, J. P. McLachlin, Toledo, P. R. Badger, Toledo.

Bd. 3, J. F. Wright, Toledo, H. B. Lehnert, Toledo; Bd. 4, J. A. Rombkowski, Toledo, B. A. Karwowski, Toledo; Bd. 5, A. E. Cone, Toledo, S. D. Zuker, Toledo; Bd. 6, A. A. Brindley, Toledo, F. C. Titus, Toledo; Bd. 7, H. G. Pamment, Toledo, G. W. Dunlap, Toledo; Bd. 8, F. A. Majewski, Toledo, E. E. Hart, Toledo; Bd. 9, T. F. Heatley, Toledo, E. R. Garvin, Toledo; Bd. 10, T. W. Durbin, Toledo, R. A. Mills, Toledo.

Bd. 11, E. B. Taylor, Toledo, R. A. Diethelm, Toledo; Bd. 12, R. L. Kennedy, Toledo, J. E. Gorman, Toledo; Bd. 13, W. A. Baird, Toledo, T. C. Kiess, Toledo; Bd. 14, A. J. Rejent, Toledo, A. E. Canfield, Toledo; Bd. 15, L. H. Hauman, Toledo, E. R. Marker, Toledo; Bd. 16, R. C. Young, Toledo, R. F. Slotterbeck, Toledo; Bd. 17, H. H. Stevens, Toledo, W. W. Wiedeman, Toledo; Bd. 18, R. E. Sinkey, Toledo, R. W. Kuebbeler, Toledo.

Bd. 19, H. K. Beckwith, Toledo, M. R. Lorenzen, Toledo; Bd. 20, H. V. L. Knisely, Toledo, L. L. Marcus, Toledo; Bd. 21, J. E. Schrider, Toledo, W. B. Sloan, Toledo; Bd. 22, V. B. Halbert, Sylvania, K. T. Cosgrove, Sylvania; Bd. 23, W. M. Gills, Maumee, J. E. Schaal, Maumee, C. J. Pollock, Holland, H. L. Babcock, Whitehouse, W. C. Suter, Waterville, R. H. Hamman, Waterville.

Madison—J. A. Knapp, London, H. P. Sparling, London; **Mahoning**—Bd. 1, J. P. Harvey, Youngstown, Joseph Rosenfeld, Youngstown; Bd. 2, Clarence Stefanski, Youngstown, W. K. Stewart, Youngstown; Bd. 3, R. G. Mossman, Youngstown, Lawrence Segal, Youngstown; Bd. 4, L. W. Weller, Youngstown, P. H. Fusco, Youngstown; Bd. 5, B. J. Dreiling, Youngstown, V. A. Neel, Youngstown; Bd. 6, A. V. Hinman, Youngstown, C. A. Gustafson, Youngstown; Bd. 7, E. H. Nagel, Youngstown, J. C. Hall, Youngstown.

Bd. 8, H. E. Fusselman, Youngstown, A. C. Montani, Youngstown; Bd. 9, J. S. Mariner, Campbell, A. B. Sherk, Campbell; Bd. 10, R. W. Fenton, Struthers, J. C. Vance, Lowellville; Bd. 11, P. H. Leimbach, Greenford, Carl H. Weidenmier, Berlin Center; **Marion**—Bd. 1, F. V. Murphy, Marion, J. W. Bull, Marion; Bd. 2, T. H. Sutherland, Marion, Floyd Yeager, Marion; Bd. 3, J. T. Boxwell, Prospect, J. R. Johnson, LaRue.

Medina—Bd. 1, R. L. Mansell, Medina, John L. Jones, Medina; Bd. 2, J. G. Whitacre, Lodi, E. C. Bell, Lodi; **Meigs**—E. F. Maag, Pomeroy, M. S. Daniels, Pomeroy; **Mercer**—J. J. Otis, Celina, R. G. Benning, Ft. Recovery; **Miami**—Bd. 1, George Upton, Piqua, G. A. Woodhouse, Pleasant Hill; Bd. 2, G. E. McCullough, Troy, E. G. Puterbaugh, Tipp City; **Monroe**—W. S. Burcher, Beallsville, O. C. Jackson, Woodsfield.

Montgomery—Bd. 1, N. E. Leyda, Dayton, F. C. Rounds, Dayton; Bd. 2, R. C. McNelly, Dayton, Wm. Roehm, Dayton; Bd. 3, Earl McCall Smith, Dayton, R. D. Potts, Dayton; Bd. 4, Wm. M. Ankeney, Dayton, H. L. Strohmeier, Dayton; Bd. 5, L. J. Newell, Dayton, J. H. Prince, Dayton; Bd. 6, L. B. Hurlless, Dayton; Bd. 7, O. C. Henderson, Dayton, W. C. Madden, Dayton.

Bd. 8, R. Dean Dooley, Dayton, J. B. Lloyd, Dayton; Bd. 9, A. D. Cook, Dayton, Kenneth Kurtz, Dayton; Bd. 10, R. O. Cass, Dayton, C. A. Hueneker, Dayton; Bd. 11, Harry W. Reck, Dayton, Charles R. Wine, Dayton; Bd. 12, D. C. Middleton, Dayton, G. L. Erbaugh, Dayton; Bd. 13, V. H. Mahan, New Lebanon, J. F. Lee, Dayton; Bd. 14, C. C. Borden, Miamisburg, G. K. Butts, Miamisburg; Bd. 15, Frank D. Crowl, Dayton, C. J. Mardis, Dayton.

Morgan—Donald G. Ralston, McConnellsville, C. E. Northrup, McConnellsville; **Morrow**—R. L. Pierce, Mt. Gilead, Joseph P. Ingmire, Mt. Gilead; **Muskingum**—Bd. 1, C. F. Sisk, Zanesville, W. L. Cruise, Zanesville; Bd. 2, D. G. Caudy, Zanesville, A. C. Ormond, Zanesville; Bd. 3, S. W. Obenour, Zanesville, R. D. Bateman, Zanesville; Bd. 4, H. C. Powelson, Zanesville, Jay Sharp, Zanesville; **Noble**—N. S. Reed, Caldwell, G. H. Zimmerman, Caldwell.

Ottawa—L. L. Belt, Marblehead, C. J. Yeisley, Port Clinton; **Paulding**—Leroy Fast, Paulding, Ray H. Mouser, Paulding; **Perry**—Bd. 1, R. W. Miller, Hemlock, George C. Tedrow, Crooksville; Bd. 2, Joseph H. Clouse, Somerset, C. B. McDougal, New Lexington; **Pickaway**—D. V. Courtright, Circleville, Lloyd Jonnes, Circleville; **Pike**—R. M. Andre, Waverly, I. P. Seiler, Piketon; **Portage**—Bd. 1, E. H. Knowlton, Mantua, A. J. Silbiger, Atwater, P. L. Harris, Ravenna; Bd. 2, P. H. Zinkham, Ravenna, I. M. Huffman, Ravenna, Sloan A. Brown, Kent.

Prebble—C. J. Brian, Eaton, C. E. Newbold, Eaton; **Putnam**—Elisha Blackburn, Kalida, Jas. R. Echelbarger, Ottawa; **Richland**—Bd. 1, W. D. Abrams, Mansfield, S. C. Schiller, Mansfield; Bd. 2, Leopold Adams, Mansfield, B. E. Shreffler, Mansfield; Bd. 3, O. H. Schettler, Mansfield, D. C. Lavender, Mansfield; **Ross**—Bd. 1, John W. Franklin, Chillicothe, R. C. Bane, Chillicothe; Bd. 2, E. C. Robbins, Chillicothe, Glen Nisley, Chillicothe.

Sandusky—Bd. 1, L. N. Bates, Fremont, J. C. Boyce, Fremont; Bd. 2, F. M. Teeple, Fremont, A. F. Schultz, Fremont; **Scioto**—Bd. 1, Dow Allard, Portsmouth, Ross M. Gault, Portsmouth; Bd. 2, C. W. Wendelken, Portsmouth, J. W.

Daehler, Portsmouth; Bd. 3, O. D. Tatje, Portsmouth, J. R. Hilling, Lucasville; Bd. 4, George D. Blume, New Boston, K. D. Reichelderfer, Wheelersburg; Seneca—Bd. 1, R. E. Hershberger, Tiffin, R. E. Schriner, Tiffin; Bd. 2, Charles E. Bender, Fostoria, Wm. G. Hartnett, Fostoria; Shelby—L. C. Pepper, Sidney, A. B. Gaudenkauf, Sidney.

Stark—Bd. 1, Frank S. VanDyke, Canton, R. E. Hall, Canton; Bd. 2, H. W. Beck, Canton; L. H. Werley, Canton; Bd. 3, J. E. King, Canton, A. R. Olmstead, Canton; Bd. 4, B. V. Antes, Canton, O. R. Clovis, Canton; Bd. 5, O. G. Wilson, Canton, S. L. Agnone, Canton; Bd. 6, Verl Garster, Waynesburg, A. R. Basinger, North Canton; Bd. 7, K. E. Reighard, Alliance, F. P. Bennett, Alliance; Bd. 8, L. E. Anderson, Greentown, W. R. Portz, Hartville; Bd. 9, Roy H. Clunk, Massillon, H. S. Myers, Massillon; Bd. 10, W. P. Hanna, Brewster, G. D. Underwood, Navarre.

Summit—Bd. 1, Fred K. Read, Akron, M. F. Bossart, Akron; Bd. 2, C. H. Bair, Akron, Roger Q. Davis, Akron; Bd. 3, G. K. Parke, Akron, A. Rowland, Akron; Bd. 4, R. J. Jolley, Akron, Frank H. Bly, Akron; Bd. 5, Stephen Greenfield, Akron, C. E. Myers, Akron.

Bd. 6, P. A. Davis, Akron, A. F. Errington, Akron; Bd. 7, M. B. Crafts, Akron, J. T. Evans, Akron; Bd. 8, R. F. Jukes, Akron, H. R. Baremore, Akron; Bd. 9, W. E. McCorkle, Akron, G. W. Hamilton, Akron; Bd. 10, J. C. McClelland, Akron, A. R. Spindler, Akron; Bd. 11, F. M. Warner, Barberton, G. R. Wellwood, Barberton; Bd. 12, Wm. J. Pittenger, Cuyahoga Falls, R. A.

Breckenridge, Cuyahoga Falls; Bd. 13, P. R. Adams, Akron, F. C. Doran, Akron; Bd. 14, T. L. Bliss, Akron, A. E. Davis, Akron.

Trumbull—Bd. 1, W. G. Totterdale, Warren, A. H. Seiple, Warren; Bd. 2, S. J. Shapiro, Warren, P. N. Mutschmann, Warren; Bd. 3, R. D. Herlinger, Warren, D. R. Mathie, Newton Falls; Bd. 4, M. A. Buck, Niles, O. A. Dearth, Niles; Bd. 5, L. A. Blum, Niles, E. G. Caskey, Mineral Ridge; Tuscarawas—Bd. 1, R. J. Foster, New Philadelphia, C. J. Miller, New Philadelphia; Bd. 2, David Allen, Dover, W. R. Stager, Dover; Bd. 3, Robert E. Wolf, Uhrichsville, Jay W. Calhoun, Uhrichsville.

Union—H. G. Southard, Marysville, P. D. Longbrake, Marysville; Van Wert—J. B. Sampsell, Van Wert, F. C. Duckwall, Van Wert; Vinton—H. D. Chamberlain, McArthur, B. F. Wills, McArthur; Warren—Bd. 1, James H. Arnold, Lebanon, Alfred E. Stout, Waynesville; Bd. 2, Roy C. A. Bock, Kings Mills, Frank Batsche, Mason; Washington—Bd. 1, J. B. Penrose, Marietta, J. F. Weber, Marietta; Bd. 2, C. R. Sloan, Marietta, J. A. McCowan, Marietta.

Wayne—Bd. 1, O. P. Ulrich, Orrville, E. W. Douglas, Wooster; Bd. 2, O. J. Shong, Rittman, F. C. Ganyard, Wooster; Williams—E. A. Bechtol, Montpelier, W. E. McKee, Bryan; Wood—Bd. 1, Frank D. Halleck, Bowling Green, G. C. Aurand, Bowling Green; Bd. 2, Frank V. Boyle, Bowling Green, Frank L. Sterling, Bowling Green; Wyandot—B. A. Moloney, Upper Sandusky, R. L. Garster, Upper Sandusky.

PERSONNEL OF 18 MEDICAL ADVISORY BOARDS IN OHIO

Eighteen Medical Advisory Boards which will examine registrants on appeal from local draft boards, have been appointed by Governor Bricker on recommendation of Colonel Boucher, chief medical officer of the Ohio Selective Service Headquarters. Colonel Boucher's recommendations were taken in most instances from lists of specialists submitted by the Ohio State Medical Association. The personnel of each board will represent the following specialties: Internal Medicine; Eye, Ear, Nose and Throat; Orthopedics; General Surgery; Neuropsychiatry; Clinical Pathology; Roentgenology; and Dentistry.

Following is a list of the physicians appointed to the Medical Advisory Boards, headquarters of each board, and counties in the board area:

Medical Advisory Board No. 1, Cincinnati; Hamilton County Area within jurisdiction of draft boards No. 1 to No. 22 inclusive: Moses Salzer, Henry Stanbery, Merrick F. McCarthy, Jos. A. Freiberg, John A. Caldwell, Charles E. Kiely, Wm. M. German, and Sidney Lange, all of Cincinnati.

Medical Advisory Board No. 2, Cincinnati; Hamilton County Area within jurisdiction of

draft boards No. 23 to 36 inclusive, and Clermont, Warren and Brown counties: Cecil Striker, Albert L. Brown, Henry M. Goodyear, Robert B. Cofield, Jos. L. Ransohoff, Louis A. Lurie, Oscar Berghausen, and William M. Doughty, all of Cincinnati.

Medical Advisory Board No. 3, Dayton; Butler, Montgomery, Preble, Darke and Miami counties: Homer D. Cassell, Edward R. Thomas, Fredk. James Driscoll, Wm. Richard Hochwalt, Elmer R. Arn, Elias C. Fischbein, Kenneth Fowler, and Harry W. Burnett, all of Dayton.

Medical Advisory Board No. 4, Lima; Shelby, Mercer, Auglaize, Allen, Van Wert, Putnam, Paulding and Defiance counties: R. B. Krouse, E. C. Yingling, J. R. Tillotson, Alan D. Knisely, all of Lima; B. L. Good, Van Wert; Herman M. Turk, John LoCricchio, and Herbert A. Thomas, all of Lima.

Medical Advisory Board No. 5, Toledo; Henry, Williams, Fulton, Lucas, Wood and Ottawa counties: Louis A. Levison, Ralph E. Boice, E. G. Galbraith, Dale Wilson, Norris W. Gillette, Louis A. Miller, A. H. Schade, and John T. Murphy, all of Toledo.

Medical Advisory Board No. 6, Sandusky; Sandusky, Seneca, Erie, Huron, and Lorain counties: James L. Curtin, Fremont; Chester B. Bliss, Sandusky; M. R. Riddell, Fremont; Burt G. Chollett,

Toledo; Frank L. Moore, Fremont; Morris Weinblatt, Herman J. Bollinger and M. E. Goodrich, all of Toledo.

Medical Advisory Board No. 7, Marion; Richland, Morrow, Marion, Hancock, Wyandot, Hardin and Crawford counties: Frank M. Wiseley, Findlay; D. W. Brickley, E. L. Brady, Marion; Judson D. Wilson, Columbus; H. K. Mouser, Carl Sawyer, Robert Ramroth, Marion; Harold O. Crosby, Findlay.

Medical Advisory Board No. 8, Springfield; Logan, Champaign, Clark, Greene, Clinton and Fayette counties: Louis H. Mendelson, Carl H. Reuter, Jas. Everette Burgman, C. E. M. Finney, Howard A. McKnight, Springfield; George T. Harding, Columbus; S. F. Crynes, Wm. Philip Ultes, Springfield.

Medical Advisory Board No. 9, Columbus; Delaware, Union, Madison, Franklin, Pickaway, Fairfield, Licking and Knox counties: M. E. Millhon, Wm. C. Davis, Hugh G. Beatty, Paul H. Charlton, Edw. Harlan Wilson, E. J. Emerick, R. S. Fidler and Herbert V. Weirauk, all of Columbus.

Medical Advisory Board No. 10, Portsmouth; Ross, Highland, Adams, Scioto, Pike and Lawrence counties: Harry F. Rapp, H. A. Green, H. M. Keil, Wm. E. Scaggs, Portsmouth; Dwight M. Palmer, Columbus; G. E. Neff, Samuel L. Meltzer, Portsmouth.

Medical Advisory Board No. 11, Athens; Athens, Hocking, Perry, Vinton, Meigs, Jackson and Gallia counties: Leo C. Bean, Gallipolis; Charles R. Hoskins, John R. Sprague, F. A. Osborne, Athens; H. P. Worstell, H. B. Davidson, Columbus; Blaine R. Goldsberry, Athens.

Medical Advisory Board No. 12, Zanesville; Muskingum, Guernsey, Morgan, Noble, Monroe and Washington counties: O. I. Dusthimer, R. S. Martin, Charles J. Roach, W. D. Coffman, Zanes-

ville; Robert C. Tarbell, Columbus; M. A. Loebell, Zanesville.

Medical Advisory Board No. 13, Canton; Holmes, Coshocton, Tuscarawas and Stark counties: Charles A. LaMont, Canton; J. F. Toot, Canton; Merle B. Scott, Massillon; Kay E. Liber, J. Edwin Purdy, Canton; Arthur G. Hyde, Massillon; I. H. Fuhs, David Tschetter, Canton.

Medical Advisory Board No. 14, Akron; Ashland, Wayne, Medina, and Summit counties: A. S. Robinson, Floyd H. Cook, Geo. A. Ferguson, Walter A. Hoyt, Carl R. Steinke, R. E. Pinkerton, F. C. Potter, Roy F. Drury, all of Akron.

Medical Advisory Board No. 15, Cleveland; Cuyahoga County area within jurisdiction of draft boards No. 1 to No. 30 inclusive: Frank J. Doran, Paul G. Moore, H. E. Mitchell, A. Straus, Louis M. Starin, Louis J. Karnosh, Benjamin S. Kline, Harry Hauser, all of Cleveland.

Medical Advisory Board No. 16, Cleveland; Cuyahoga County area within jurisdiction of draft boards No. 31 to 51 inclusive, and Ashtabula, Geauga and Lake counties: F. C. Oldenburg, C. L. McDonald, E. W. Garrett, Clarence H. Heyman, D. M. Glover, Joseph L. Fetterman, Rafael Dominguez, E. P. McNamee, all of Cleveland.

Medical Advisory Board No. 17, Youngstown; Trumbull, Mahoning, Columbiana and Portage counties: Wm. H. Bunn, John E. L. Keyes, Wm. H. Evans, R. R. Morrall, F. W. McNamara, D. H. Smeltzer, Wm. Dean Collier, Saul J. Tamarkin, all of Youngstown.

Medical Advisory Boards No. 18, Steubenville; Carroll, Jefferson, Harrison and Belmont counties: Victor Biddle, J. R. Mossgrove, John L. Quinn, Fred B. Harrington, L. Reed Cranmer, Steubenville; Arthur G. Hyde, Massillon; G. B. Kramer, Youngstown; J. E. Miller, Steubenville.

DOCTORS NAMED TO BOARDS OR OTHER OFFICIAL POSITIONS

Ohio physicians serving as members of local draft boards, members of advisory boards to draft boards, members of appeals boards or as appeals agents in the selective service system, are as follows:

Allen—T. T. Sidener, Lima, A. A. Dalton, Lima, C. E. Savage, Delphos; Ashtabula—Wm. M. Leet, Conneaut; Butler—H. L. Burdsall, Hamilton; Champaign—David H. Moore, Urbana; Clark—A. Richard Kent, Springfield; Clermont—J. C. Spence, Milford, James K. Ashburn, Batavia, Allen B. Rapp, Owensville; Crawford—W. L. Yeomans, Bucyrus, E. C. Brandt, Crestline, Karl H. Barth, New Washington.

Cuyahoga—Geo. Edw. Follansbee, Cleveland, Harry G. Sloan, Cleveland; Fairfield—W. B. Taylor, Pickerington; Franklin—Geo. B. Nessley, Columbus, Clarence Fry, Columbus, J. E. Kerschner, Columbus; Greene—Harold C. Messenger, Xenia; Hamilton—Albert E. Flagge, Cincinnati,

A. C. Busch, Cincinnati, Thomas P. Hart, Cincinnati, Dan C. Handley, Cincinnati, John H. Skavlem, Cincinnati.

R. P. McClain, Cincinnati, Charles Dillard, Cincinnati, L. A. Nichols, Cincinnati, A. P. Cole, Cincinnati, G. T. Keen, Cincinnati, Sherwood Chamberlain, North College Hill; Henry—Clarence F. Murbach, Archbold; Jefferson—J. E. Miller, Steubenville; Knox—F. C. Anderson, Mt. Vernon; Logan—C. K. Startzman, Bellefontaine; Lorain—R. W. Hancock, Elyria, P. C. Colgrove, Oberlin, P. L. Morgan, North Ridgeville, Joseph M. DeNardi, Lorain.

M. E. Kishman, Lorain, D. D. Grimm, Lorain, S. J. Birkbeck, Elyria, R. W. Faus, Wellington, Russell M. Arnold, Avon Lake, Thomas F. Cushing, Elyria; Meigs—L. C. Gribble, Pomeroy; Morgan—A. Raymond Burkhart, Woodsfield; Morrow—W. B. Robinson, Mt. Gilead; Perry—J. G. McDougal, New Lexington; Portage—R. D. Worden Ravenna.

Putnam—Wiley D. Hickey, Leipsic, Harry A.

Neiswander, Pandora; Ross—A. E. Merkle, Chillicothe, Russell E. Lightner, Kingston, Ralph Holmes, Chillicothe; Sandusky—C. I. Kuntz, Fremont; Scioto—Wm. M. Singleton, Portsmouth; Seneca—Robert C. Chamberlain, Tiffin; Stark—H. W. Bell, Massillon; Tuscarawas—D. M. Cera-

mella, New Philadelphia; Vinton—T. B. Haas, McArthur.

Warren—N. A. Hamilton, Franklin, Robert M. Blair, Lebanon; Washington—H. E. Dickson, New Metamoras; Wayne—R. C. Paul, Wooster, L. A. Adair, Wooster.

OHIO MEDICAL OFFICERS AT CAMP SHELBY WITH 37TH DIVISION

As of November 8, the following Ohio physicians were on duty as medical officers with the 37th Division (Ohio National Guard), at Camp Shelby, Mississippi. The list shows the unit to which each man has been assigned.

112th Medical Regimental Staff—Col. Harry D. Jackson, Circleville; Lt. Col. Paul R. Ensign, Toledo; Major Edgar J. Curtiss, Lima.

Division Surgical Office Detachment—Major Hobart L. Mikesell, West Liberty.

112th Medical Regiment, First Battalion—Captain Carr E. Dix, Columbus. Company A, Captain John C. Blinn, New Philadelphia; Captain Joseph J. Fink, Cleveland. Company B, Captain Ward A. Fritz, Wooster; 1st Lt. Frederick W. Kaylor, Bellefontaine.

112th Medical Regiment, Second Battalion—Major Adelbert R. Callander, Delaware. Company D, 1st Lt. James R. Glier, Greenfield; Company E, 1st Lt. Edward L. Montgomery, Circleville.

112th Medical Regiment, Third Battalion—Major Jerry O. Crist, Centerburg. Company G, Captain Thomas V. Kolb, South Charleston; 1st Lt. William J. Horger, East Liverpool; 1st Lt. Bernard Burgin, Cincinnati; 1st Lt. Francis J. Robben, Bridgeport; 1st Lt. Hugh C. Dorr, Columbus; 1st Lt. Peary B. Berger, Englewood. Company H, Captain Gaylord D. Fridline, Ashland; 1st Lt. Robert H. Akers, Columbus; 1st Lt. Frank J. Calo, East Cleveland; 1st Lt. Frank A. Nantz, Cincinnati; 1st Lt. Robert F. Zeller, Mansfield.

112th Engineers—Major Winston F. Walker, Rocky River.

145th Infantry—Major Neville H. McNerney, Cleveland; Captain Patsey F. Briola, Cleveland; Captain James R. May, Cleveland; Captain Arch L. Oldaker, Cleveland; 1st Lt. Robert P. Scott, Norwalk.

147th Infantry—Major James N. Christiansen, Cincinnati; Captain Harold I. Humphrey, Cincinnati; Captain James G. Inman, Manchester; Captain Paul N. Ivins, Hamilton; Captain Owen

F. Yaw, Cincinnati; 1st Lt. Walter H. Angerman, Wooster.

148th Infantry—Captain Nichlos Michael, Columbus; 1st Lt. Ellis Flax, Cincinnati; 1st Lt. John K. Humphries, Belle Center; 1st Lt. Paul J. Lee, Lucas; 1st Lt. George H. Wood, Leesburg.

166th Infantry—Major Harry E. Caldwell, Delaware; Captain Norvil A. Martin, Gallipolis; Captain Dan G. Morse, Columbus; Captain Kenneth D. Smith, Columbus; 1st Lt. William N. Vigor, Brecksville.

OPENINGS IN NATIONAL GUARD

There are openings for between 12 and 15 physicians in the 151st Medical Battalion (Corps), Ohio National Guard, a new unit being organized under the command of Lt. Col. Horace E. Groom, Akron. Physicians interested in becoming commissioned officers of this unit should communicate with Dr. Groom, 159 South Main Street, Akron.

The battalion will be composed of Clearing Co. A, Akron; Collecting Cos. B, Bedford, C, Steubenville, and D, Akron; and a Headquarters Detachment, Akron. It will consist of approximately 280 men and will be assigned for training at Camp McClellan, Alabama.

134th Field Artillery—Captain John J. Gallen, Columbus; Captain James R. Reeves, Columbus; Captain Wilbur A. Stoughton, Columbus.

135th Field Artillery—Major Wilber E. Beach, Middletown; 1st Lt. Donald D. Forward, Ashtabula; 1st Lt. Stewart M. Wilson, Columbus.

136th Field Artillery—Major Anthony Rup-

persberg, Jr., Columbus; Captain Fred P. Berlin, Wapakoneta; Captain Paul Troup, Dayton.

112th Quartermaster Regiment—Major Sloan J. Wilson, Columbus; 1st Lt. Alexander N. Davis, Dayton; 1st Lt. Roswell Lowery, Cleveland.

Special Troops—Captain Joseph A. Ridgeway, Columbus.

Col. E. T. Kirkendall, M.D., Columbus, is in command of the 134th Field Artillery, serving as an artillery officer.

OHIO MEDICAL RESERVE OFFICERS NOW ON ACTIVE DUTY

Following is a list of Ohio Medical Reserve Officers called for active duty as of November 1 and their present location, exclusive of Medical Reserve Officers in training with the 37th Division (Ohio National Guard) at Camp Shelby, Mississippi, whose names are listed elsewhere in this article:

Major Frank J. Vokoun, Lakewood, Headquarters Staff, Ft. Hayes, Columbus; Capt. Louis Adelman, Cleveland, Fitzsimmons General Hospital, Denver, Colorado; Capt. Chester H. Allen, Portsmouth, Ft. Benjamin Harrison, Indiana; Capt. James H. Carson, Martins Ferry, Ft. Thomas, Kentucky; Capt. Lewis W. Cello, Carrollton, Ft. Hayes, Ohio; Capt. Clyde J. Cranston, Wakeman, Ft. Hayes, Ohio; Capt. Glenn U. Dorroh, Cincinnati, Ft. Hayes, Ohio.

Capt. Clyde W. Everett, Cleveland, Ft. Benjamin Harrison, Indiana; Capt. Harold K. Goler, Cleveland, Ft. Hayes, Ohio; Capt. Harry R. Grau, Cleveland, Ft. Thomas, Kentucky; Capt. Paul G. Hansen, Warrensville, Ft. Knox, Kentucky; Capt. Sherman R. Hawley, Toledo, Presidio of Monterey, California; Capt. Walter B. Lacock, Logan, Ft. Hayes, Ohio; Capt. John W. Leichter, Cincinnati, Ft. Thomas, Kentucky.

Capt. Robert P. Lytle, Cleveland, Ft. Benjamin Harrison, Indiana; Capt. Theodore W. Novak, Columbus, Ft. Hayes, Ohio; Capt. Phillip P. Pease, Chardon, Ft. Hayes, Ohio; Capt. Elmer J. Rodenberg, Columbus, Ft. Hayes, Ohio; Capt. Cecil G. Stillinger, Columbus, Ft. Benning, Georgia; Capt. Roy H. Thompson, Cleveland, Ft. Hayes, Ohio; Capt. James C. Vanneter, Columbus, Ft. Hayes, Ohio; Capt. Louis A. Vogel, Lakewood, Middletown Air Depot, Pennsylvania.

Lt. Maurice C. Archer, Medina, Ft. Hayes, Ohio; Lt. Ned F. Barehof, Canton, Ft. Benjamin Harrison, Indiana; Lt. Ralph D. Bolton, Canton, Army Medical Center, Washington, D. C.; Lt. George H. Bonnell, Jr., Worthington, Ft. Benjamin Harrison, Indiana; Lt. Robert E. Bowsher, Toledo, Ft. Benjamin Harrison, Indiana; Lt. David G. Eisner, Cleveland, Ft. Benjamin Harrison, Indiana; Lt. Sylvester C. Ford, Cleveland, Ft. Thomas, Kentucky; Lt. Rosendo Forteza, Jr., Columbus, Ft. Thomas, Kentucky.

Lt. Mark A. Freedman, Columbus, Ft. Bragg, N. C.; Lt. Benjamin S. Gillespie, Tacoma, Ft. Benjamin Harrison, Indiana; Lt. Jaye J. Grollman, Cincinnati, Panama Canal Department; Lt. Morris I. Heller, Cleveland, Ft. Benning, Georgia; Lt. Reuben H. Hoover, Columbus, Ft. Hayes, Ohio; Lt. James W. Humphreys, Jr., Cincinnati, Ft. Thomas, Kentucky; Lt. John J. Kamesis, Cleveland, Ft. Knox, Kentucky; Lt. Ronald R. Kaplan, Cleveland Heights, Ft. Knox, Kentucky.

Lt. William J. Loeb, Cleveland Heights, Ft.

Thomas, Kentucky; Lt. William F. Lovebury, Columbus, Ft. Hayes, Ohio; Lt. Louis L. Marcus, Toledo, Ft. Benjamin Harrison, Indiana; Lt. John Marsico, Lorain, Ft. Knox, Kentucky; Lt. John W. Matson, Uhrichsville, Ft. Hayes, Ohio; Lt. Richard L. Meiling, Columbus, Ft. Thomas, Kentucky; Lt. William M. Moody, Cincinnati, Ft. Benning, Georgia.

Lt. Clarence E. Northrup, II, McConnelsville, Ft. Hayes, Ohio; Lt. Stephen W. Ondash, Youngstown, Ft. Hayes, Ohio; Lt. Thomas E. Patton,

WHERE TO GET ACCURATE DATA

Ohio physicians interested in obtaining information pertaining to openings which may exist in the Medical Corps of the Regular Army or about signing up for the Army Medical Reserve Corps, should communicate with Colonel W. L. Pyles, Corps Area Surgeon, Fifth Corps Area, Fort Hayes, Columbus.

If interested in obtaining similar information about the Medical Corps of the Navy or the Medical Reserve Corps of the Navy, a physician should write the Commandant, Ninth Naval District, Great Lakes, Illinois.

These officers are in a position to supply complete and accurate advice and information as to the needs of their respective branches and the qualifications which an applicant must possess.

North Jackson, Panama Canal Department; Lt. David Pollack, Columbus, Ft. Bragg, N. C.; Lt. Carl E. Roush, Cincinnati, Ft. Thomas, Kentucky; Lt. George S. Stine, Columbus, Ft. McPherson, Georgia; Lt. David P. Ward, Pemberville, Ft. Hayes, Ohio; Lt. Brent A. Welch, Sidney, Ft. Hayes, Ohio.

The following Ohio physicians are commissioned officers in the Navy Medical Reserve Corps and are at present on active duty at the stations indicated:

Lt. R. V. Clifford, Girard, U. S. Naval Hospital, Philadelphia, Pa.; Lt. Comdr. E. H. Cushing, Cleveland, Bureau Medicine and Surgery, Washington, D.C.; Lt. D. L. Davies, Columbus, Naval Reserve Recruiting Station, Columbus, Ohio; Lt. J. P. Fakehany, Toledo, Naval Reserve Recruiting

Station, Columbus, Ohio; Lt. C. R. Forrester, Toledo, Naval Air Station, Pensacola, Florida.

Lt. O. J. Fronek, Cleveland Hts., Naval Reserve Recruiting Station, Cleveland, Ohio; Lt. E. R. Hammersley, Tuscarawas, U. S. Naval Hospital, Newport, R. I.; Lt. H. L. Hauman, Toledo, 8th Battalion, USMCR, Toledo, Ohio; Lt. Herman Keck, Cincinnati, U. S. Naval Hospital, San Diego, California; Lt. Comdr. H. P. McCrimmon, formerly of Minneapolis, Minn., Marine Recruiting Station, Cleveland, Ohio.

Lt. F. S. Meck, Cleveland, Naval Reserve Recruiting Station, Cleveland, Ohio; Lt. Herbert Warm, Hamilton, U.S.N. Recruiting Station, Cincinnati, Ohio; Lt. R. G. Witwer, Cleveland Hts., Recruiting Personnel, Cleveland, Ohio.

House of Delegates Will Meet at Hotel Cleveland, "Ohio Headquarters," During Week of June 2-6, 1941

Hotel Cleveland, Cleveland, has been officially selected by the Ohio State Medical Association as "Ohio Headquarters" during the week of June 2-6, 1941, when the American Medical Association will hold its annual session in Cleveland and when business sessions of the House of Delegates of the Ohio State Medical Association will be held.

By action of the House of Delegates, the Ohio State Medical Association will not present a scientific program and exhibits as members who are Fellows of the A.M.A. will have an opportunity to attend the educational session and exhibits of the national organization.

However, the House of Delegates of the State Association will hold two sessions for the purpose of transacting necessary business. These sessions will be held at Hotel Cleveland, the Ohio headquarters. The first session will be held on Tuesday afternoon, June 3, at 4 o'clock and the second session on Wednesday evening, June 4, 6:30 o'clock. The latter session will open with a complimentary dinner for members of the House of Delegates. If satisfactory arrangements can be made, tickets for the dinner may be placed on sale so that Ohio physicians, other than delegates, who are in Cleveland for the A.M.A. sessions, can attend the dinner if they care to do so.

Arrangements are being made with Hotel Cleveland to provide accommodations for members of the House of Delegates of the Ohio State Medical Association. As soon as 1941 delegates have been chosen by the county medical societies, reservation blanks will be mailed to them and rooms will be reserved from those being held in a block by Hotel Cleveland.

Members of the State Association, other than delegates, who are planning to attend the A.M.A. session should make their hotel reservations early. Hotel rooms will be at a premium in Cleveland during the A.M.A. session. Information on hotels and reservation blanks will be published in *The Journal of the A.M.A.* and *The Ohio State Medical Journal* in the near future.

CHANGE IN ADDRESS SHOULD BE REPORTED PROMPTLY

Due to the Selective Service and mobilization of the military forces for active training, many more physicians than under ordinary circumstances are changing locations.

These men will want, and should have, their copy of *The Ohio State Medical Journal* each month. The Journal will do everything possible to keep its mailing list up to date but it must have the cooperation of members to accomplish this.

Therefore, we wish to call to the attention of members:

1. That changes in address should be reported to *The Journal* as promptly as possible.
2. That a change in address must reach *The Journal* office, Columbus, by the 18th day of the month preceding the date of publication of an issue (which is the first day of each month) to insure delivery of that issue to the proper address.

Third Course of Regional Postgraduate Lectures Will Close in December

The third year of the Ohio State Medical Association Five-Year Regional Postgraduate Lectures Course will come to a close in December with sessions at Columbus on Wednesday, December 4, and Portsmouth, Thursday, December 5. Final sessions at Napoleon, Tiffin, Mansfield, Warren, Cadiz, Athens, Wapakoneta and Lebanon were held in November.

The Columbus session will be held at the Deshler-Wallick Hotel. Speakers and subjects are: Dr. J. M. Ruegsegger, Cincinnati, "Practical Uses of Sulfanilamide", and "Modern Treatment of Pneumonia"; Dr. M. A. Blankenhorn, Cincinnati, "The Anemic Patient", and "Deficiencies and Anemia".

The Portsmouth meeting will be held at the American Legion Hall. Dr. Edward King, Cincinnati, will discuss "Complications of the Common Cold", and "Childhood Ear Infections: Proper Treatment to Prevent Deafness". Dr. Judson D. Wilson, Columbus, will speak on "Fractures and Pseudo-Fractures of the Spine", and "Emergency Treatment of Roadside Injuries".

Five Physicians Elected to Legislative Bodies---One To Congress, Four to General Assembly---at Nov. 5 Election

FOUR physicians were elected to the Ohio General Assembly and another to the United States Congress at the General Election on November 5. All are members of the Ohio State Medical Association.

Dr. Frederick C. Smith, Marion, Republican, was re-elected to Congress from the Eighth District, which includes Crawford, Hancock, Hardin, Marion, Morrow and Wyandot counties. Dr. Smith was Mayor of Marion from 1935 to 1939.

Chairman of the Senate Health Committee in the 93rd Ohio General Assembly, Dr. H. T. Phillips, Athens, Republican, was re-elected to the Senate from the Ninth - Fourteenth District, comprising Fairfield, Hocking, Morgan, Athens, Washington, and part of Noble and Monroe counties. Dr. Phillips was the representative from Athens County in the 91st General Assembly, 1935-36, and was a member of the House Health Committee during that term.

Dr. George G. Hunter, Irononton, Republican, was elected to the State Senate from the Seventh-Eighth District, which includes Adams, Pike, Scioto, Vinton, Jackson, Lawrence, Meigs and Gallia counties. Dr. Hunter served in the legislature in 1929-1930, being a member of the House of Representatives from Lawrence County. During that session he was a member of the House Health Committee.

With 18 year's previous service in the legislature, Dr. Errett LeFever, Glouster, Republican, re-elected representative from Athens County, will be the "dean" of the 94th Ohio General Assembly. Dr. LeFever held the same post in 1900-1901, 1904-1905, 1921-1922, 1933-1934 and 1939-1940. He was a member of the State Sen-

ate from the Ninth-Fourteenth District, during the years 1923-1930. At the last session of the legislature he was chairman of the House Health Committee.

Dr. Forrest R. Stewart, Irononton, Republican, was elected to the House of Representatives from Lawrence County. This will be Dr. Stewart's first session in the legislature.

Dr. Howard V. Dutrow, Dayton, a Republican candidate for the House of Representatives from

Montgomery County, was defeated in the Democratic landslide in that county.

The Ohio delegation in the United States Congress will consist of two Republican Senators, Robert A. Taft, Cincinnati, and

Harold H. Burton, Cleveland, and 24 members (12 Republicans and 12 Democrats) of the House of Representatives. The Democrats gained four House seats in the last election.

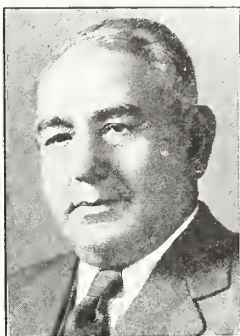
The heavy Republican majority in the last session of the State Legislature was greatly cut by Democratic gains in the recent election. The 1941-42 Senate will consist of 20 Republicans

and 16 Democrats, compared with 27 Republicans and 8 Democrats in the previous biennium. There will be 78 Republicans and 60 Democrats in the House. In the 1939-1940 session there were 100 Republicans and 36 Democrats.

The two parties were planning caucuses of their members in the Senate and House of Representatives in Columbus as this issue went to press. The Republican Senators will choose their floor leader, and the Democrats a minority floor leader. A speaker and a majority floor leader will be selected by the Republican members of the House, and a minority floor leader by the Democrats. The Assembly will convene on January 6, 1941.



DR. PHILLIPS



DR. LEFEVER



DR. SMITH



DR. STEWART



DR. HUNTER

Duties of the Military Surgeon

By MAJ. FRANK J. VOKOUN, Med. Res.

Medical Instructor, Ohio Military Area, Fort Hayes, Columbus

SINCE the World War of 1914-19 great changes have occurred in the realms of science. By means of research, things have now become commonplace which were thought impossible of fulfillment only a short time ago.

Nations have been quick to seize upon new discoveries and use them for the advantage of their people. And professional soldiers have eagerly seized upon these things for the more vigorous prosecution of war.

As a consequence the present world war presents many new features which military medical men must appreciate if they are to successfully care for the sick and wounded of the armed forces.

Modern warfare is total warfare whose object is not merely the destruction of the enemy's armed forces on land, sea, and in the air, but also the destruction of his cities and the civilian population within them.

This is the warfare inaugurated by dictator-led countries, a condition which may face the United States unless she is prepared to fight fire with fire.

To make us ready, we are now organizing a modern army of over 1,000,000 men which will be the best trained, the best equipped, and the finest fighting force the world has ever seen.

What part will the doctor have in this picture?

Well, to begin with, he will have the job of examining these men. The Army must have only men who are fit to stand the rigors of military service. On the other hand, certain malingerers must be caught who are trying to "let George do it".

The average individual thinks it is simple to examine a man and determine his fitness for military service. The opposite is true. The examination of new men requires the services of specialists. Mobilization Regulations No. 1-9 list 186 different conditions which disqualify a man for military service. It is far from a simple matter.

After the men have passed by the examining board comes a different duty for the physician. The job of keeping them healthy. This also sounds easy—but is it? Certain problems immediately assert themselves. The main problem is that of controlling epidemics. Whenever large groups of men are thrown into close contact

epidemics will occur. Many readers will remember the terrible flu epidemic in our cantonments during the last war. The measures taken stemmed the epidemic but only after a ghastly toll of human life was taken. Can we prevent such epidemics from striking our future Army? It is true we have new weapons to fight disease—sulfanilamide, sulfapyridine, sulfathiazol, and various pneumonia vaccines and anti-sera; but the Army doctor will have to be a skilled epidemiologist—will have to know how to take measures to stop an epidemic before it really gets started. He will have to supplement his knowledge of existing Army Regulations covering this subject by the latest knowledge emanating from our laboratories and teaching centers.

As you sit in your chair reading this (or do I flatter myself that you are reading this), you may want a drink of water. You will probably pick up a sparkling tumbler, go over to the sink, turn on a faucet, let it run until it is cold and take a delicious drink—and think nothing of it. You know that the department of water in your town has treated the fluid so that the dead fish and living bacteria have been removed—and the fluid smells good—i.e., is odorless—is colorless, tasteless and perfectly transparent. But what about the Army doctor who is on the march with his troops and who has to find safe water for them? He must know how to treat that water to make it safe and potable and must see that it is.

He must also see that the disposition of human excreta is properly and safely managed, that garbage and rubbish do not collect to menace the health of troops, that food is stored and cooked properly, that mess kits are kept clean and sanitary, that flies and mosquitoes are kept under control, etc. In other words, he must be a sanitarian, a chemist, and a public health officer all rolled up into one.

Then comes the job of learning the organization of the unit he is going to serve. Obviously, if he is to render the best service, he should know something about the men who are going to need that service. Suppose, for instance, he is assigned as Battalion Surgeon to a Battalion of a Combat Engineer Regiment with a Triangular Division. He first learns the organization of the unit by studying the Table of Organization T/O 5-15P (Triangular Div.) He then makes a working plan of the Battalion. See Charts Nos. 1 and 2 on opposite page.

This article represents the personal views of the writer and is not an official document of the War Department. It was prepared by Major Vokoun, formerly of Lakewood, at the request of The Journal.

(Continued on page 1330)

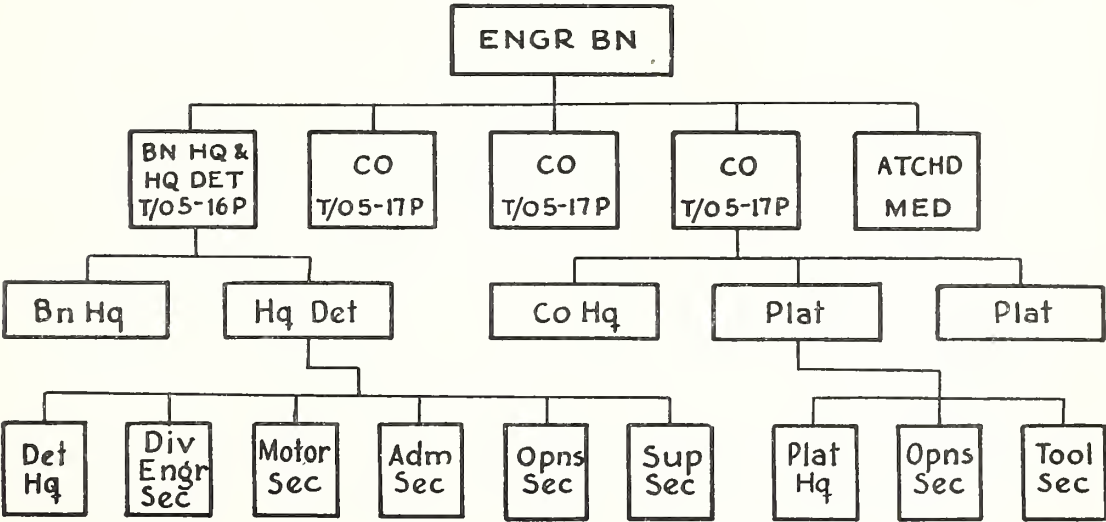
CHART NO. 1

T/O 5-15 (Triangular Div)
Engineer Battalion, Combat
(Wholly motorized, dump trucks used as personnel carriers)

	1	2	3	4	5	6	7
1	Unit	1 Co T/O 5-17 P	Bn Hq & Hq Det T/O 5-16 P	3 Cos	Total Bn	Atchd Med	Aggre- gate
2	Lieutenant colonel.....		1		1		1
3	Captain.....	1	3	3	6	1	7
4	First lieutenant.....	1		3	3	1	4
5	Second lieutenant.....	1		3	3		3
6	Total commissioned.....	3	4	9	13	2	15
7	Master sergeant.....		2		2		2
8	First sergeant.....	1	1	3	4		4
9	Technical sergeant.....		2		2		2
10	Staff sergeant.....	3	2	9	11		11
11	Sergeant.....	9	2	27	29	1	30
12	Corporal.....	10	3	30	33	1	34
13	Private.....	67	18	201	219	8	227
14	Total enlisted.....	90	30	270	300	10	310
15	AGGREGATE.....	93	34	279	313	12	325
16	Gun, machine, heavy, cal .30.....	2		6	6		6
17	Pistol.....	20	15	60	75		75
18	Rifle, cal .30, M1.....	73	19	219	238		238
19	Compressor, air, motorized, 1½-ton, 4x4.....	2		6	6		6
20	Electric lighting set.....		1		1		1
21	Car, light, 5-passenger.....		1		1		1
22	Motorcycle, with side car.....	1	1	3	4		4
23	Tractor, medium, with bulldozer.....	1		3	3		3
24	Trailer, ¾-ton, cargo.....	1		3	3		3
25	Truck, ½-ton, 4x4, command.....	3	1	9	10	1	11
26	Truck, 1½-ton, 4x4, cargo.....					1	1
27	Truck, 1½-ton, 4x4, dump.....	9	4	27	31		31
28	Truck, 2½-ton, 6x6, cargo.....	1		3	3		3

CHART NO. 2

Battalion Working Plan

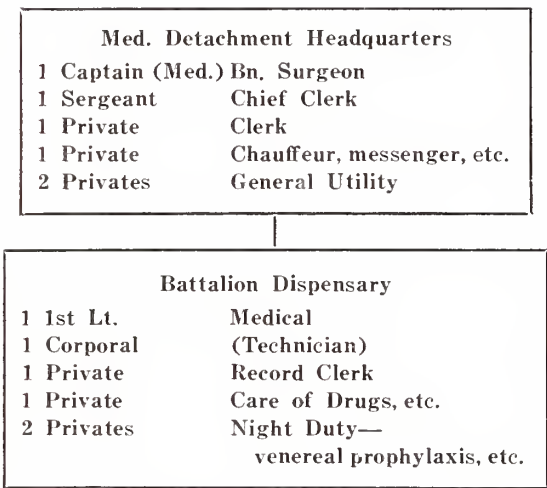


After this he summarizes his own office personnel as follows:

- 1. One Captain (Med.) (Bn. Surgeon)
- 2. One First Lieutenant (Med.)
- 3. One Sergeant
- 4. One Corporal
- 5. Eight Privates

He has the privilege of arranging his staff to suit himself—although there are certain regulations available if he desires them. Suppose the Army is at peace. How would he arrange his men? Well, a working arrangement could be worked out as shown in Chart No. 3.

CHART NO 3



How would this differ in time of war? Well—a working arrangement in case of battle could be worked out as set forth in Chart No. 4.

As the battle progressed, if some of his staff became casualties, the Battalion Surgeon would have to shift his men around anyway he saw fit—to do the job he is supposed to do.

Of course, one of his most important duties is to drill and educate his staff so that they can do their jobs properly. He must be a teacher as well as a surgeon, and, at times, he must be a lawyer, for he will have to sit on courts martial and mete out punishment to any of his men who violate military laws.

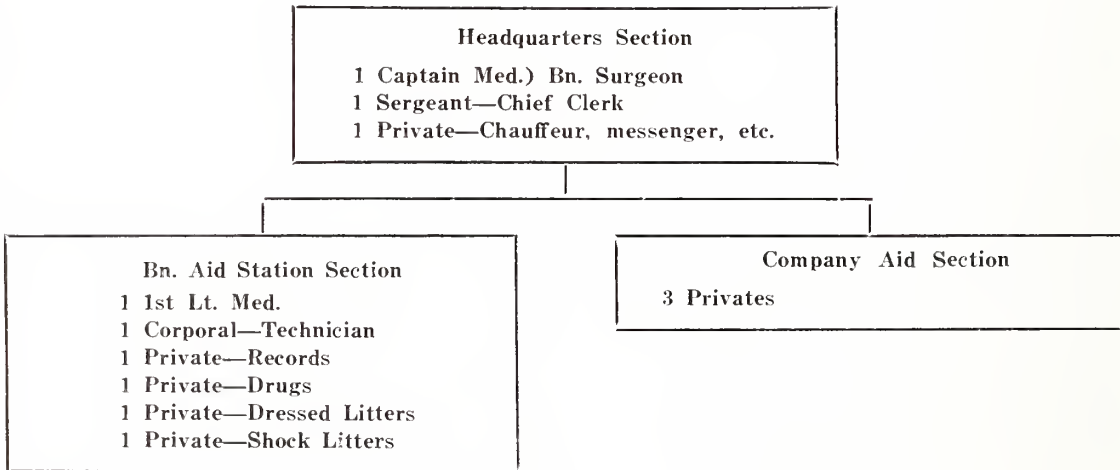
I have given you a simple case—that of a military surgeon serving as Battalion Surgeon with a Battalion of a Combat Engineer Regiment. Suppose he is the Regimental Surgeon? Suppose he is the surgeon of an Infantry Regiment or of a Division of 14,000 men, or an Army Surgeon with over 100,000 men to care for? His problems multiply—his worries increase.

Thousands of medical men will be needed soon. Most of them must be Reserve Officers trained in military science as well as merely in the practice of medicine.

I cannot in the scope of this paper discuss the new tactics of medical troops. This will be covered in a lecture which I shall give in different cities throughout the State of Ohio. These lectures will be open to the entire medical profession and will be under the auspices of the Medical Reserve Officer Cadres in the various cities. If you are interested in obtaining further military information, you are cordially invited to attend.

Many physicians think that in time of emergency they will merely offer their services to their country and practice medicine in the Army. The number of purely professional medical positions available is very small. The ideal military surgeon is one part doctor and nine parts soldier.

CHART NO. 4



What? Why? How? Who?

TIMELY QUESTIONS AND ANSWERS ABOUT MEDICAL SERVICE PLANS AND THE OHIO ENABLING ACT TO BE SPONSORED BY THE OHIO STATE MEDICAL ASSOCIATION IN THE 1941 LEGISLATURE

—New Questions and Answers Each Month—

THIS is the third of a series of questions and answers on Medical Service Plans and the Ohio Enabling Act, which will be sponsored by the Ohio State Medical Association, in the 1941 session of the General Assembly. In presenting this monthly feature, The Journal will attempt to give all members information which will be useful to them in mobilizing support for the enabling bill.

* * *

7. What powers are vested in the State Division of Insurance by the Ohio Enabling Act for Medical Service Plans?

Inasmuch as medical service plans involve the issuance and sale of a contract, there must be some arrangement for supervision of the business affairs of the organization by a responsible public official in order to safeguard the interests of subscribers. Since a medical service plan is from the economic point of view a form of insurance, the act designates the Superintendent of Insurance as the regulatory authority. Before a corporation desiring to operate a medical service plan can do so, it must obtain a license from the superintendent. He is required to issue such license if the corporation has met certain definite requirements (some of which have been discussed) enumerated in the act. The corporation is required by the act to file annually with him a report showing its financial condition, the number of contracts issued and outstanding, and similar data. This official is permitted to examine the affairs of the corporation periodically to see if it is maintaining its premium reserve, investing its funds, and carrying on its other business transactions in conformity with the act. He has the right to refuse to renew or to revoke a license if the corporation violates the act and to liquidate the corporation, if necessary, under the provisions of general insurance laws. Customary provisions for hearings and appeals on all actions of the superintendent are included in the act. In other words, the Division of Insurance does not have the power to say how the medical service plan shall be operated and it has no control over the medical affairs of the corporation. However, it does have the authority to ascertain if the corporation is complying with the act and to enforce compliance if necessary. These powers are not excessive but they are sufficient to protect the interests of subscribers, as well as physicians, to stimulate public confidence in the medical service plan, and to encourage individuals to become subscribers.

8. Would every licensed physician in Ohio be permitted to serve subscribers to a medical service plan and would subscribers have free choice of physician?

The Enabling Act makes adequate provision to maintain the ordinary, personal relationship between physician and patient. Any duly licensed physician, residing within the territorial boundaries within which the corporation is legally permitted to operate, may, if he chooses, become eligible to render professional services to subscribers. Upon becoming eligible, a physician, as under ordinary circumstances, would have the right to accept any subscriber as a patient or the right to request a subscriber to seek the services of some other eligible physician. Each subscriber would have the right to seek professional services from any eligible physician. In other words, the act, and any plan organized under it, would not in any way modify present-day procedure. Selection of physician rests with each subscriber. Each physician would retain the right to use his own judgment on the matter of accepting a subscriber as a patient or referring a subscriber to another physician for services.

9. Could indigent sick be provided with medical care under a medical service plan?

This could be arranged, subject to the discretion of the board of trustees of the corporation operating the plan. The Enabling Act provides that such a corporation may receive and accept from governmental agencies payments covering all or part of the cost of contracts entered into between the corporation and subscribers. In other words, such a corporation and the relief agency of a county could cooperate in seeing that medical services are provided for the needy sick. The county, under this agreement, would pay the subscription fee for each relief client and the corporation would see that such clients are provided with medical services. The corporation would have the right to fix the subscription fee and to establish necessary regulations for serving this class of subscribers.

Message from the President

THE CRISIS IS NOT OVER; IT IS JUST BEGINNING

By WM. M. SKIPP, M.D., YOUNGSTOWN

THE United States of America has demonstrated that it still is a democracy. What happened on November 5 and during the weeks prior to that date could not have occurred under any other form of government.

We as a profession should rejoice at the fact that this nation is continuing to function in accord with democratic principles for such principles are the fundamentals on which the American system of medical practice rests. At the same time, we must rededicate ourselves to the all-important job of actively assisting in preserving our democratic form of government.

The medical profession has never shirked its responsibilities and duties. Now, as always, we must stand firm and stand united so that we will be capable of giving the very best within us to our country in these days of tragic uncertainty.

WE WILL DO OUR PART

We as a profession have pledged ourselves to support in all ways the national defense program of our government. We as a profession will do our part in defending our nation against aggressors. We as a profession will use everything within our power to preserve the health of the people in event of a national emergency and to keep our military forces in the required physical condition. We as a profession will unite with all groups among our people in supporting those in high command when their actions are for the best interests of our nation.

Yet, we should not permit ourselves to be lulled into inactivity or allow ourselves to be caught offguard. At all times we must be prepared to fight for our principles and ideals. While defending our nation against the international aggressor, we must be on guard against the Fifth Column awaiting an opportunity to strip us of our professional freedom. We dare not be misled by promises which can, and may, be broken.

The medical profession of Ohio has a big task to perform during the ensuing months. It will require the untiring efforts of all of us. No physician can feel that he does not have a part to play.

THREE BIG TASKS

First, we must continue our fight to preserve our ideals and principles. Second, we must try to have those ideals and principles, as well as our objectives and motives, understood by the public at large. Third, we must speed up our efforts to make our constructive program, involv-

ing the making of more complete medical care more readily available to all, a reality.

As I have pointed out on other occasions, the keystone of our program is the proposed enabling act for medical service plans which we will present to the Ohio General Assembly in January. If we are successful in having this measure enacted, the way will be open for the medical profession itself to provide the answer for many of the medical problems of certain classes of our people. It will be our answer to those who contend that government control of medicine is the only solution.

Our legislators will have to be interviewed, made familiar with our proposal, and requested to support it. The public will have to be acquainted with our plans and motives. Additional education of those within our own ranks will be necessary.

We are confronted with a gigantic responsibility and an enormous undertaking. Our destiny, perhaps, depends on how well we perform the duties which are before us. The crisis is not over; it is just beginning. We must be ready.

Hospital Staff Presents Lectures

The following members of the staff of City Hospital, Cleveland, spoke on the Third Annual Lecture Course for practicing physicians on recent advances in medicine and surgery offered by Western Reserve University School of Medicine, Mondays, Wednesdays and Fridays, from 12:00 to 1:00 P.M., in the amphitheatre of the Central Laboratories, City Hospital, September 30 to October 30: Dr. J. R. Driver, Dr. H. N. Cole, Dr. E. M. Perry, Dr. R. L. Cox, Dr. C. T. Dolezal, Dr. R. W. Scott, Dr. C. W. Engler, Dr. P. G. Moore, Dr. W. P. Garver, Dr. C. F. Garvin, Dr. L. G. Steuer, Dr. M. L. Siegel, Dr. J. A. Toomey, Dr. P. M. Glenn, Dr. R. W. Heinle, Dr. R. M. Stecher, Dr. J. L. Reycraft, Dr. R. P. Fulton, Dr. D. M. Glover, Dr. E. E. Beard, Dr. J. E. Rauschkolb, Dr. S. O. Freedlander.

A.M.A. Scientific Exhibit

Application blanks are now available for space in the Scientific Exhibit at the Cleveland Session of the American Medical Association, June 2 to 6, 1941. They may be obtained by communicating with the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems: Suggestions Regarding Organized Activities

Last month we called attention to the financial needs of the State Industrial Commission, pointing out that the Commission deserves a better

Medical Board Needs

Larger Allowance for

Administrative Expenses

break when the State Legislature starts apportioning funds for the ensuing biennium, in fact, must have

more money in order to increase its efficiency to meet new and pressing administrative problems.

This month we would like to voice a similar plea on behalf of the State Medical Board, an agency of vital concern to the medical profession as well as the people of Ohio, and to urge all physicians to drive home this fact in their conversations with members of the next General Assembly.

The State Medical Board is more than self-supporting. In fact, annually it furnishes to the general revenue fund of the state more than it spends in a 12 months' period. But, it is at the mercy of the Legislature and depends on that body for its bread and butter, so to speak. It has been many moons since the Board has been given an appropriation which anywhere approaches its needs.

Charged with the responsibility of policing the ranks of those practicing the healing arts, co-operating with local law enforcement agencies, holding examinations and issuing licenses, the State Medical Board is one of the most important agencies in the state government. It is on the first line of defense against forces inimical to the health of Ohio's citizens.

Despite its importance, the State Medical Board over a period of years has been slighted financially. It is expected to carry on its investigation with two inspectors on a very limited travel allowance. It is expected to carry on its administrative work with an inadequate office personnel. Sound reasons which the Board has advanced periodically as to why a larger operating appropriation is needed, have not been heeded.

But despite these handicaps, the Board has year in and year out done an efficient job—a much better job than would be expected under the circumstances but not as good a job as could be done if it had adequate funds. The Board deserves much credit for having carried on effectively in the face of mounting problems under a horse-and-buggy-days budget. However, this cannot continue indefinitely. The day of reckoning is at hand. The Board must be dealt with more liberally by the next and ensuing Legislature

if it is to cope with the new work being imposed upon it.

This is a problem which must have the serious consideration of the medical profession of Ohio. The profession is obligated to see that the State Medical Board is provided with an opportunity to do the job which it wants to do, and can do, if given adequate tools. Every physician should regard it is his duty to emphasize this need to the legislators from his community and advise them to support budgetary requests submitted by the Board which, in the final analysis, is the best authority as to the needs of that department of the state government.

Incidentally, the medical profession can assist the Board in other ways. For example, when investigations are being made by an inspector of the Board in a certain community, the inspector, working for the Board, has a right to expect the cooperation of the physicians of that locality, especially the officers of the county medical society. Moreover, it should be understood that local law enforcement officers are more inclined to act, and to act promptly, if urged to do so by the physicians of the community. The Board has its responsibilities; the physicians of every county have theirs. If a cooperative procedure can be worked out, better law enforcement is certain to follow.

It is the common fate of the indolent to see their rights become a prey to the active. The condition upon which God hath given liberty to man is eternal vigilance; which condition if he break, servitude is at once the consequence of his crime and the punishment of his gift.—John Curran.

The 94th General Assembly of Ohio will convene in Columbus on January 6, 1941. A look at the official records of past General Assemblies,

When You Write Your Legislator Be Sure You're Right

which will show that actually scores of bills pertaining to health and medical questions have been considered, should be

enough to convince Ohio physicians that as a group they should be much concerned about the transactions of the state's legislative body.

The old saying that votes for or against proposals are made back home because members of the Legislature are particularly anxious to please the majority of their constituents, is still a truism.

This means that physicians—all of them—have a role to play in the forthcoming session.

Obviously, the most effective method of furnishing information to a legislator and soliciting his support is to arrange for a personal interview with him. As an alternative, write him. How to frame an appropriate letter for such an occasion is not as simple as some might suppose.

With apologies for seeming to offer what appear to be trivial suggestions; with due credit to the United States Chamber of Commerce which drafted the basic idea and the Legislative Bureau of the N. Y. State Medical Society which adapted them and with a few adaptations of our own, we offer the following "do's and don'ts" for the guidance of those who feel inclined to write their legislators:

Do—

Spell your legislator's name correctly.

Be sure you know whether he is a Senator or a Representative.

State concisely what you think and why—the briefer the better.

Be sure of your facts and arguments.

Cite specific illustrations, if possible, as to the effects proposed legislation would have on the health of the people, on scientific medicine, on medical education and on the practice of medicine.

Write on your office stationery; sign your name plainly.

Write, when time permits, instead of sending a telegram.

Wire, or use the telephone in cases of emergency.

Don't—

Write in a captious or belligerent mood.

Threaten reprisals.

Remind the legislator of forgotten promises.

Attempt to speak for anybody but yourself.

Insert mimeographed material or clippings.

Send a chain letter, postal card or form letter.

Write only when you want a favor—letters of commendation always are welcome.

Try to make an errand boy out of your legislator.

Become a chronic letter writer—incidentally a bore.

If the medical profession itself proves its capacity to supply medical needs economically and efficiently the state will have no valid reason to recommend that the taxpayers support the immense political bureaucracy which any system of state medicine will involve. Medicine has a great opportunity here and now! Will it rise to this challenge?—Westchester Medical Bulletin.

Not long ago a check up by the State Health Department of Pennsylvania revealed that the department's laboratory which is supported by

tax funds is doing
"Without Consistency on the average of
There is No about 1,500 free
Moral Strength" serologic tests per
 week on specimens
 submitted by physi-

cians examining persons applying for marriage licenses. At face value, this would seem to indicate that about half of those now being married in Pennsylvania are indigent since the law requires a physician submitting a specimen to the state laboratory to certify that the person furnishing the specimen is indigent. However, this conclusion was refuted by data concerning many of the applicants.

Commenting on the situation, *The Pennsylvania Medical Journal* made these pertinent points:

"Many physicians who preach that the tax-supported health departments compete unfairly with family physicians are now inconsistently competing with private laboratories. They are thoughtlessly or recklessly certifying that persons apply for marriage licenses in Pennsylvania are indigent, thus authorizing the State Health Department's tax-supported laboratory to make serologic tests free of charge.

"Why should practicing physicians not be consistent and certify as being entitled to 'tax-supported' laboratory service or other forms of free medical service only those whom they find economically unable to pay for the physician's own professional services? In this happy event the continued entrance into all forms of medical practice of young men and women ambitious to maintain good professional service on a basis free from unfair governmental competition would be encouraged and maintained.

"Do we wish to see laboratory service as a specialty of the profession of medicine pass fully into the category of state medicine any more than we wish to see private general practice taken over by the state?

"Without consistency there is no moral strength.' So said John Jason Owen 100 years ago.

"The organized medical profession has been soliciting moral support from the public for a number of years in its struggle against those who seek political control of the profession. Do we not in this particular instance need to demonstrate moral strength?"

In these times of stress we hesitate to be too critical of those within the medical profession but we know that not all the inconsistent physicians reside in Pennsylvania; there are some in Ohio. Pathology as a specialty is having the same struggle in Ohio as it is in Pennsylvania. Likewise, it is being handicapped and injured in Ohio by those in other fields of medicine who are "thoughtlessly or recklessly" encouraging competition financed through public funds. It's about time for the medical profession in Ohio, and elsewhere, to realize that the profession itself is aiding and abetting a movement which, if allowed

to continue, will destroy one of the basic elements of the private practice of medicine—the private practice of pathology as a specialty in medicine.

Your County Medical Society should be a central bureau of information in all matters pertaining to the health and welfare of the people of your community.—*The Journal of the Medical Society of the State of New Jersey.*

Activities of the Bureau of Public Education of the State Association which receive most attention are usually its major projects such as ex-

Bureau Plugs Away, Strengthening Profession's Relations with the Public

hibits at the State Fair and conferences of laymen, special radio program series, or successes in press relations. So, it is easy for one not in close touch with the Bureau to overlook the fact that the daily routine in the Bureau includes the conduct of many small matters which are nonetheless effective as good medical public relations.

A quick survey of the correspondence files in the Bureau of Public Education for the last few weeks shows that among its activities of apparently lesser importance are the following typical items:

Twelve physicians and laymen have been furnished printed material on socialized medicine and economics of medical care. To the physicians requesting this service have gone copies of the "model talk" prepared by the Bureau several months ago, which may be used in addressing lay groups.

Subject file literature was loaned to six physicians, the topics ranging from sex education and social hygiene to the use of tobacco and stimulants by athletes on high school teams.

Two physicians have been assisted in obtaining health education movies for use at meetings of local groups of laymen. One local academy of medicine was given assistance in outlining its educational radio programs for the coming year, and the many manuscripts of radio programs filed and indexed by the Bureau were offered to it.

Two officers of women's clubs in different sections of the state were assisted in planning programs devoted to a discussion of modern medicine.

More than a score of requests for the Health Quiz which the Bureau used at the 1940 State Fair were received, and nearly 1,000 of the quizzes and answer sheets were distributed for use in high school and college hygiene classes, social clubs, church youth organization, Scout troops, and NYA groups. This does not include the dozen or more requests for individual copies of the quiz which were received from health educators and others interested in this project.

Program managers of NBC radio stations throughout the state were contacted and urged to carry the American Medical Association's radio series, "Doctors At Work," if it were in any way possible to fit it into their program schedules. This educational series was also promoted in other correspondence by the Bureau at the same time.

A variety of unclassifiable requests was filled, such as one from a man building a house who desired information about the health aspects of air conditioning and several from press service bureaus and individual newspapers which wanted photographs of State Association officers.

The Bureau long ago justified its existence and it is making progress daily in its work of giving the public the proper viewpoints about the medical profession and its activities.

I want some inflammation about gaul stones. Can old folks gettin pension have them. What I mean is I got some the doctor says and what can I do about it.—Letter to Indiana Department of Welfare.

During recent years there has been an increasingly widespread use of routine serologic testing for syphilis in medical practice, in industry, under

Warning About False Positive Reactions In Tests for Syphilis

compulsory physical examination laws, etc. Additional emphasis has been placed on this procedure by insertion in the Selective Service regulations of a requirement that all men given a physical examination at the order of local draft boards must submit to a serologic examination for syphilis.

There are arguments pro and con as to the value of wide-range testing for syphilis. We do not intend to argue that point. But, we do wish to emphasize a point which every physician should know, namely: Biologic false positive reactions for syphilis do occur, meaning that every physician must be on his guard against a hasty diagnosis, especially a false one which is certain to cause numerous complications and tragic problems.

Every physician owes it to himself and his patients to read every word of the article, "Biologic False Positive Serologic Tests for Syphilis", by Moore, Eagle and Mohr, in the November 9, 1940, issue of *The Journal of the American Medical Association*, pages 1602-1606.

Space will not permit reproduction of the entire article here, but the following excerpts are presented to indicate the thorough job which the authors have done and to encourage every reader of this journal to study the original article in its entirety, especially the part which suggests procedures when biologic false positive tests are suspected:

"At the outset, it should of course be said that

when a positive serologic reaction for syphilis is obtained in a patient who gives no history or shows no physical evidence of the disease the test should at once be repeated—and before the patient is told of the original result—in order to exclude a technical false positive result. This having been done, it is usually necessary to recheck both history and physical examination for actual clinical evidences of syphilis, since, unless the examiner has the possibility of syphilis in mind before the serologic reaction is first obtained, both are likely to be sketchily inadequate.

"It is common experience that a history of infection with syphilis is hard to obtain. Of patients with proved late syphilis of various types, at least one-third of the men and one-half of the women can give no story of early symptoms. When a history of infection with syphilis or of treatment for it is not obtainable, the risk of possible exposure should be asked for and noted.

"A physical examination for syphilis is not complete unless it consists of thorough dermatologic examination (the patient stripped and the skin and mucosae carefully examined in good light), and thorough general medical and neurologic examination, including the use of the ophthalmoscope. The statement 'there is no physical evidence of syphilis' is not acceptable unless at least this much has been done. When physical abnormalities are present, great care is sometimes necessary in their interpretation, as illustrated by two of our recent patients. One with herpes progenitalis and coincident pityriasis rosea had been elsewhere diagnosed as having primary and secondary syphilis; the other, with a retrosternal thyroid and perforation of the nasal septum due to chrome poisoning, had been thought to have syphilitic aortitis and a nasal gumma.

"What serologic evidence of syphilis shall be accepted in apparently normal persons with no history of infection or of treatment for it? By and large, repeatedly positive serologic tests in a reliable laboratory, if confirmed by more than one standard technic (and especially if both a complement fixation and a flocculation procedure are used) mean latent syphilis in a person lacking history or physical evidence of the disease, provided there has been an opportunity for such infection to occur. Sometimes, perhaps often, it may be desirable to check the reliability of the laboratory by duplicate tests and by tests made in a different laboratory. Not only does this guard further against technical error but also a rare patient may, for unknown reasons, give consistently positive reactions in one laboratory and negative reactions in all others.

"When shall serologic evidence of syphilis be doubted? As Stokes humorously puts it, there are 'instances . . . in which one (positive) Wassermann test will convict a laborer over his own denial, two will make a case against a banker or a railroad president, but three successive positives will scarcely convince the medical adviser of the 'guilt' of a clergyman.' True as this is, every physician has patients for whom, for entirely personal and mostly undefinable and intangible reasons, he is hesitant to accept a purely serologic diagnosis of syphilis.

"Specifically, on clinical grounds, he is justified in suspecting as false a positive serologic result in at least two categories of patients: (1) young girls or young women who, lacking history or physical evidence of syphilis, have not been demonstrably sexually exposed (virginity should be objectively demonstrated in such cases by intactness of the hymen), and (2) persons of either sex and of any age who, also lacking historical or

physical evidence of syphilis, are found to have positive reactions at an interval after one or more previously negative reactions and who deny exposure in the interim (examples of each of these categories are cited in one of the previous papers of this series).

"On serologic grounds, one is justified in suspecting as false a positive reaction in a patient who, lacking historical or clinical evidence of infection and, whatever his history of potential exposure, gives a series of conflicting results when tested by different technics or at different laboratories."

If kind words paid bills, about the most prosperous of all citizens would be the general practitioner of medicine.—New York Sun.

A follow-up program among victims of the recent epidemic of infantile paralysis for the purpose of ascertaining if they are receiving

Follow-Up Program for Infantile Paralysis Victims Is Launched

adequate treatment and rehabilitation training has been started in Ohio.

The program is being carried on jointly by the Bureau of Crippled Children, Division of Public Assistance, and the State Health Department, the latter working for the most part through local health departments. Funds are being supplied by the United States Children's Bureau.

Nurses of the crippled children's bureau are visiting all areas from which infantile paralysis cases were reported. In those areas, data are being provided them by the local health commissioners, attending physicians, and public health nurses. Visits are being made to the paralysis victims.

In event she discovers that a victim is not receiving appropriate treatment, the nurse will recommend that competent medical personnel be engaged immediately. If the victim or his family are unable to provide proper treatment, arrangements will be made for financing such care. In all instances, the attending physician, if any, will be invited to participate in the conferences.

This, in our opinion, is a worthy project and should have the blessing of the medical profession. That statement is made on the assumption, of course, that certain proprieties are observed by those conducting the survey. As Dr. R. H. Markwith, State Director of Health, has pointed out, the proper time to begin the rehabilitation of infantile paralysis victims is as soon as therapy is indicated—not months or even years after the disease has struck when it is too late to do anything for them.

Money spent on this program will not be poured down a rat hole which is more than can be said for some of the enterprises which have been attempted during recent years by tax-spending agencies.

Do You Know - - -

Estate of the late Dr. Dickson L. Moore, Columbus, was listed at \$554,734 in an inventory filed in the Franklin County Probate Court. It included \$414,948 in securities; \$100,045 in real estate, \$21,153 in money, \$17,354 in accounts receivable and \$1,232 in personal property. The bulk of the income from the estate goes to the Columbus Humane Society, after numerous individual bequests to employes of the household of the late Dr. Moore and others are fulfilled.

* * *

The next session of the Interstate Post-Graduate Medical Association of North America will be held at Minneapolis during the week of October 12, 1941. Dr. George W. Crile, Cleveland, is chairman of the program committee.

* * *

Science teachers in the Cleveland Public Schools will attend a series of 15 health lectures arranged jointly by the health education committee of the Academy of Medicine and the science department of the Cleveland School System. Members of the Academy will be the speakers. The program is designed to inform the science teachers about the latest knowledge in health fields.

* * *

Dr. E. H. Baxter, professor of pediatrics, Ohio State University College of Medicine, spoke on "Problems of the Newborn Period", and Dr. A. Carlton Ernstene, Cleveland Clinic, discussed "Common Errors in Cardiac Diagnosis", at the annual fall meeting of the Eighth District of the Ohio State Medical Association at McConnelsville, November 7.

* * *

The trial of the American Medical Association and certain of its officials for alleged violation of the Sherman Anti-Trust Laws, scheduled to start in Washington, D.C., on October 21, was indefinitely postponed on October 17. The reason given was that the presiding judge disqualified himself from sitting on the case because of his former connection with the Justice Department as an assistant attorney general. According to U. S. Attorney Edward M. Curran the case was taken off assignment, and "will be set down for trial in the future on a date agreeable to both the government and the defense".

* * *

The bowling league of the Toledo Academy of Medicine has been so popular that it may have to be increased from 6 to 8 five-man teams. The kegelers meet every Thursday afternoon at 2:45. Captains and names of the teams are: Dr. J. R. Seesholtz, "Diaphoretics"; Dr. E. F. Ward, "Carminatives"; Dr. C. L. Felker, "Emmenagogues"; Dr. S. D. Zuker, "Aperients"; Dr. R. J.

Borer, "Escharotics", and Dr. K. D. Figley, "Emollients".

* * *

Dr. Barney J. Hein, Chairman of the Committee on Workmen's Compensation of the Ohio State Medical Association, spoke on "The Meaning and Value of Industrial Health" at a meeting in Youngstown, October 23, sponsored by the Mahoning Valley Industrial Council, the Trumbull County Manufacturers and the Ohio and National Association of Manufacturers.

* * *

Dr. Tom D. Spies, associate professor of medicine, University of Cincinnati College of Medicine, has been appointed to a committee named by the Division of Medical Sciences of the National Research Council to serve in an advisory capacity to the Surgeons General of the Army and Navy. The committee's work will deal particularly with recommending proper diets.

* * *

According to *Science Service*, the U. S. Navy is shipping to Cuba a new 500-bed mobile hospital that will be rushed to any outpost in the Western Hemisphere where American fighting forces may need hospital care. The staff will include 30 medical officers and 300 enlisted men of the Navy.

* * *

New officers of the Union District Medical Association, which held its 145th semi-annual meeting at the Richmond State Hospital, Richmond, Indiana, October 24, include: Dr. Paul W. Blossom, Richmond, Ind., president; Dr. H. L. Burdsall, Hamilton, vice-president, and Dr. Leon T. Cox, Fountain City, Indiana, secretary-treasurer. The next meeting will be held in Rushville, Indiana, April 24, 1941.

* * *

The Columbus Academy of Medicine has elected the following physicians to Honorary Membership, in recognition of their meritorious service to the medical profession and the Academy: Dr. John Edwin Brown, Sr.; Dr. Edson J. Emerick; Dr. Elmer G. Horton; Dr. James A. McClure; Dr. Charles J. Shepard; Dr. Carl L. Spohr; Dr. Andrew J. Timberman; Dr. J. H. J. Upham and Dr. Frank Warner.

* * *

Of the 6,743 applicants for enlistment into the Regular Army of the United States in the Second Corps Area, which includes New York City, during June, July and August, 1940, the number rejected for failure to meet the physical requirements was 2,195, more than 32.5 per cent. All applicants were unmarried, in the 18-35 age group.

Plan for Voluntary Evaluation and Approval of Diagnostic Laboratories in Ohio Adopted by Public Health Council

A PLAN whereby directors of public, private and hospital diagnostic laboratories in Ohio may register for voluntary evaluation and approval is being whipped into final form by the State Department of Health, in accordance with recommendations adopted by the Ohio Public Health Council on October 19, 1940.

No date has been set as yet for acceptance of applications for evaluation and approval, according to Dr. R. H. Markwith, State Director of Health. Applications will not be accepted until satisfactory arrangements for handling all details have been completed, Dr. Markwith stated.

The long-range objectives of the plan are to encourage and to facilitate the use of the best available methods in laboratory diagnosis; to elevate the general quality of the performance of serodiagnostic tests for syphilis to at least a minimum level of consistency and reliability; and "to attain this goal by cooperation, encouragement and assistance rather than by compulsion".

OHIO WILL BE READY

At the same time, another objective of the plan is to lay the groundwork in Ohio for a satisfactory system of approval of laboratories performing tests for syphilis in event Ohio should follow the example of approximately 20 other states by enacting laws requiring premarital physical examinations and serologic tests of pregnant women. Such laws in other states provide that these tests shall be made only at "approved" laboratories.

The Ohio plan was drafted by the Advisory Committee on Serodiagnosis of Syphilis of the State Department of Health. Before final action by the Public Health Council, the plan was reviewed and approved by The Council of the Ohio State Medical Association (see November, 1940, issue, *The Journal*, page 1207) and the Ohio Society of Pathologists. The committee which prepared the plan was composed of Dr. Walter M. Simpson, Dayton, chairman; Dr. Benjamin S. Kline and Dr. J. R. Driver, Cleveland; Dr. Daniel J. Kindel, Cincinnati; Dr. Harry L. Reinhart, Columbus, and Dr. Markwith, ex-officio.

TEXT OF REPORT AND PLAN

Following is a report of the advisory committee, in which the plan of evaluation and approval is incorporated, and which was adopted by the Public Health Council as its recommendation for setting up the plan in the State Department of Health:

"In an editorial entitled, 'Accurate Blood Tests for Syphilis', which appeared in *The Journal of the American Medical Association* for August 3, 1940, the following statements were made: 'More and more states are passing laws requiring premarital examinations. Twenty of these laws require a physical examination of both sexes as well as blood tests for syphilis. Antepartum examination laws requiring serologic tests have been enacted in 18 states. The passage of these laws is an important step in the control of syphilis. However, the effectiveness of their application depends on the reliability of the serologic tests employed in making or ruling out a diagnosis of syphilis. The physician who makes the examination is held responsible for the decision made in the case even though the basis for his diagnosis may rest largely on the results of serologic studies. This fact makes it necessary for him to know the accuracy of such serodiagnostic tests. Physicians should not be satisfied with a satisfactory rating of the state health laboratories alone but should demand intrastate studies of the performance of serologic tests in municipal, hospital and private laboratories. After a state laboratory has been rated as satisfactory, it is in a position to act as a control laboratory for intrastate studies of other laboratories. It should also be in a position to advise and assist other laboratories in bringing their efficiency up to an acceptable standard and to maintain this standard once it has been reached. At present, under the new premarital laws, few states will accept the reports of serologic tests performed in other states because the efficiency of the serologic work is unknown. The evaluation and rating of laboratories in the various states should eventually result in the reciprocal acceptance of the reports of serologic tests performed in other states. Support by the medical profession of this attempt to improve the performance of serologic tests for syphilis will not only aid in the better administration of the various laws pertaining to the control of syphilis but will also serve as a stimulus to the improvement of serodiagnostic methods throughout the country.'

COMPULSION IS NOT CONTEMPLATED

"Accordingly, the Advisory Committee on Serodiagnosis of Syphilis of the Ohio Department of Health plans to invite the directors of all diagnostic laboratories in Ohio to register for voluntary evaluation and approval. The evaluation studies will be limited to periodic comparative examination of the performance of serodiagnostic tests for syphilis. Such a plan is now in operation in 20 states. The plan in some states is based upon enabling legislation, but such legal compulsion is not contemplated in Ohio. The advantages of periodic examination and the attainment of certificates of approval have been found to compensate fully for the effort put forth by the directors of local laboratories.

"The broad objectives of the plan are (1) to encourage and to facilitate the use of the best available methods, (2) to elevate the general quality of the performance of serodiagnostic tests for syphilis to at least a minimum level of consistency and reliability, and (3) to attain this

goal by cooperation, encouragement and assistance rather than by compulsion.

WILL AID PRIVATE LABORATORIES

"The experience of the Committee on the Evaluation of Serodiagnostic Tests for Syphilis of the U. S. Public Health Service has been that all the state laboratory directors have welcomed the opportunity to compare the performances of their laboratory workers with those of other laboratories and with the originator of a given test.

"It is the belief of the members of this committee that local, independent laboratory service, supplemented by the central state laboratory, offers far greater advantages to the physicians of the state than any expansion of state laboratory facilities and services. The U. S. Public Health Service has recommended that full use be made of all existing facilities for the performance of serodiagnostic tests for syphilis in qualified hospital and private laboratories, and further recommends that such qualified laboratories may be subsidized by funds available to the State Department of Health for the performance of such tests.

MUST HAVE ADEQUATE SYSTEM

"It is also the opinion of the members of this committee that no legislation should be enacted in the State of Ohio requiring the performance of serologic tests for syphilis upon pregnant women or upon candidates for marriage license until a satisfactory system of approval of laboratories performing such tests is in operation.

"As in the national evaluation studies, the results of the comparative performances will be made known only to the Director of each participating laboratory. Each participant will be informed only of the results obtained in his laboratory and those obtained in the control laboratories.

"In accordance with the recommendations adopted at the Assembly of Laboratory Directors and Serologists, at Hot Springs, Arkansas, in 1938, the following provisions have been adopted by the Advisory Committee on Serodiagnosis of Syphilis for the evaluation of serologic performances of federal, municipal, hospital and private laboratories in Ohio:

STANDARDS AND PROCEDURE

"1. To give a fair estimate of the performance of any test in terms of specificity and sensitivity, the number of specimens from specially selected nonsyphilitic donors will not be less than 100 and the number of specimens from specially selected syphilitic donors also will not be less than 100.

"2. The syphilitic donors will be selected by competent syphilologists and will be completely documented in order that the status of the patient may be clearly established.

"3. As the sensitivity of the test is determined by its ability to detect minimal concentrations of reagin, the syphilitic donors will be selected on such a basis as to include not more than 10 per cent of positive serums containing large amounts of reagin (as from patients with secondary syphilis). The balance of syphilitic donors will be selected from patients with treated or untreated syphilis whose serums might be expected to contain varying amounts of reagin.

"4. The negative controls will be drawn from presumably normal, nonsyphilitic individuals.

"5. Because it is difficult to obtain large quantities of blood, not more than 30 laboratories will be included in any one study.

HOW TESTS WILL BE GRADED

"6. Qualitative serodiagnostic tests will be reported as positive, doubtful, or negative, on forms provided for that purpose. A false doubtful report (on a non-syphilitic specimen) will receive one-half demerit. A doubtful report on a specimen from a syphilitic donor will receive one-half credit. Such a rating is in accord with the practices of the Serologic Evaluation Committee of the U. S. Public Health Service. Symbols may be used to describe a positive, doubtful or negative test if the symbols are placed only in the designated column of the prescribed report form.

"7. Whole blood specimens will be distributed since conditions should simulate those in ordinary practice.

"8. The specimens will be mailed on the day of collection after a firm clot has formed at room temperature. If there be any delay in mailing specimens, they will be placed in the refrigerator and mailed within 24 hours of the time of collection.

"9. To qualify as satisfactory, a laboratory should attain a sensitivity rating not more than 10 per cent below that of the control laboratory and a specificity rating not less than 99 per cent (based upon false positive reactions). The Venereal Disease Research Laboratory of the U. S. Public Health Service, Staten Island, New York, will also act as a control laboratory.

RE-EXAMINATIONS CONTEMPLATED

"10. Laboratories once approved as satisfactory will be re-examined once each year unless changes in personnel indicate the need for an earlier examination. Opportunity for retesting will be offered more frequently to those laboratories which fail to gain a satisfactory rating.

"For the purpose of registration, the plan includes a yearly census of all laboratories performing tests for syphilis in the State of Ohio. Experience has shown that the performance of serologic tests for syphilis on an average of less than 100 persons per month is fraught with unnecessary hazards. Applications for registration for evaluation will not be accepted from laboratories performing tests on an average of less than 100 persons per month during the year prior to registration.

TESTS SHOULD BE SPECIFIED

"The director of each laboratory should specify the tests (Eagle, Hinton, Kahn, Kline, Kolmer) he wishes to perform for the purpose of evaluation, in order that a sufficient quantity of blood may be provided. As other serologic methods are approved on the basis of national evaluation studies they will be included for intrastate evaluation. The results of each test performance by a given method should be reported separately. 'Consensus' reports, based upon the results obtained in the performance of multiple tests upon the same sample, are not acceptable. Every effort will be made to duplicate the conditions encountered in everyday practice.

"Donors will be carefully chosen and accurate records will be kept of pertinent facts in the history and physical examination. Reasonable care

will be exercised to insure that donors will be available for both clinical and serologic re-examination in the event of a significant proportion of discrepant reports.

ANTIGEN TO BE SUPPLIED

"All laboratories participating in the evaluation will receive without cost a sufficient supply of standardized antigen for any of the approved methods (Eagle, Hinton, Kahn, Kline, Kolmer) to carry out the tests. The directors of all laboratories which register for evaluation will also receive a recently prepared, detailed description of test performance for each of these five methods. Strict adherence to the author-serologists' conventional technic will be expected.

"Opportunity will be provided upon request for visits to participating laboratories by consultant serologists. It is also planned to inaugurate refresher courses in serology at the Ohio Department of Health Laboratory, Columbus, for trained technicians who might profit from additional training in modern technics. Applications for visitation by serologist-consultants or for additional training should be made to the State Health Director. Such services will be rendered without cost to registered laboratories. Directors of laboratories may also arrange with the originators of a serologic method for the advanced training of serologists in the laboratories of the originators.

"If desired, laboratories which are approved for the performance of serodiagnostic tests for syphilis will receive without cost standardized antigens in sufficient quantity to carry out all tests for syphilis, upon application to the State Director of Health.

QUALIFICATIONS OF DIRECTOR

"After July 1, 1941, the director of a laboratory requesting registration shall possess the degree of Doctor of Medicine; he shall be licensed to practice medicine in the State of Ohio; he shall have had postgraduate training in clinical pathology for a period of at least three years in an approved institution; and he shall devote all or a major portion of his time to the actual direction of the performance of medical laboratory procedures. These requirements will not be made retroactive to apply to Directors of Laboratories who apply for registration before July 1, 1941. Only those laboratories conducted in an ethical manner will be approved.

"No provision is made for the licensing or approval of medical technologists or medical technicians. The Director of the Laboratory should be wholly responsible for the performance of duties by his technical assistants.

"In compliance with the resolutions adopted by the House of Delegates of the Ohio State Medical Association (May, 1940) and the House of Delegates of the American Medical Association (June, 1940) laboratory tests for syphilis performed by the Ohio Department of Health Laboratory will be restricted to 'requests made by physicians whose patients find it difficult or impossible to pay the cost of laboratory services in the customary manner'. In both resolutions the following statements were made: 'Laboratory services by State Board of Health Laboratories should be confined to requests made by Health Officers and to those made by physicians whose patients find it difficult or impossible to pay the cost of laboratory services of this kind in the customary manner. Laboratories of State Boards

of Health should not provide services at taxpayers' expense to persons who are able to provide for themselves."

"A statement to this effect will appear on all request forms for tests for syphilis performed by the Ohio Department of Health Laboratory and the signature of the physician to a request form indicates that the patient finds it difficult or impossible to pay for such service in the customary manner."

Dr. Doughty New President-Elect of American Roentgen Ray Society

Dr. William M. Doughty, Cincinnati, was named President-Elect of the American Roentgen Ray Society at the close of the society's 41st annual meeting held recently in Boston. Director of radiology at Christ Hospital and Children's Hospital, Cincinnati, Dr. Doughty is a past-president of the Cincinnati Academy of Medicine; member of the Ohio State Medical Association; Fellow of the American Medical Association, the American College of Surgeons and the American



Dr. Doughty

College of Roentgenology, and a member of the Radiological Society of North America. Dr. Doughty was formerly assistant director of roentgenology at Cincinnati General Hospital and associate professor of radiology at the University of Cincinnati College of Medicine, which positions he resigned to become a member of the Board of Directors of the University of Cincinnati. A graduate of Miami Medical College, Cincinnati, in 1906, Dr. Doughty served an internship of 18 months in Cincinnati General Hospital, and did postgraduate work in London and Vienna for one year. In May, 1938, the State Industrial Commission appointed him as one of the three silicosis referees authorized by Sub. House Bill 71, enacted by the Ninety-Second Ohio General Assembly, adding silicosis to the list of diseases compensable under the Workmen's Compensation Act. Dr. Doughty was General Chairman for the 94th Annual Meeting of the Ohio State Medical Association at Cincinnati last May.

Medical Women's Society To Meet

The mid-year Board meeting of the American Medical Women's Association will be held at the Hertzler Clinic, Halstead, Kansas, Saturday, December 7. Dr. Irene A. Koeneké will be hostess. There will be medical, neurological and surgical rounds in the morning, followed by a board meeting in the afternoon. All Ohio medical women are cordially invited to attend. For additional information concerning the meeting write Dr. Shirley Armstrong, Ohio State University, Columbus.

In Memoriam

Edward Minor Huston, M.D., Dayton; Medical College of Ohio, Cincinnati, 1896; aged 75; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 22. A practicing physician in Dayton for 44 years, Dr. Huston was ever active in behalf of his profession. In 1909 he was president of the Montgomery County Medical Society. He had represented that society many times in the House of Delegates of the Ohio State Medical Association, and in 1913-1914 was a member of the Association's Committee on Public Health Education. Dr. Huston was Councilor for the Second District from 1931 to 1935, and in the Fall of 1936 in Cleveland was installed as President of the Association, having been named President-Elect at Cincinnati the previous year. Dr. Huston had been a member of the local Board of Education, and maintained an active interest in the civic affairs of his community. He was an enthusiastic student of Abraham Lincoln, and possessed a large library on the Civil War president. Dr. Huston was a member of the Masonic Lodge and the Presbyterian Church. Surviving are his widow, and two sons.

Louis P. H. Bahrenburg, M.D., Cleveland; Western Reserve University School of Medicine, 1896; aged 68; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died October 14. An honorary life member of the Cleveland Academy of Medicine, Col. Bahrenburg retired two years ago as commanding medical director of the United States Marine Hospital at Cleveland, terminating 38 years in the U. S. Public Health Service. Official assignments had taken him all over the world, including Liverpool, London, Honolulu, Copenhagen and Stuttgart. The New Marine Hospital was established at Cleveland during Col. Bahrenburg's 15 years of service there. He was a member of the Cleveland Academy's Public Health Committee and the Cleveland Health Council, and a trustee of the Cleveland Anti-Tuberculosis League. Col. Bahrenburg was a member of the Old Stone Church and the Alpha Mu Pi fraternity. Surviving are his widow, a daughter and a son, Dr. James H. Bahrenburg, Canton.

Robert James Baird, M.D., Creston; Western Reserve University School of Medicine, 1885; aged 87; former member of the Ohio State Medical Association and the American Medical Association; died November 2. Dr. Baird had been a resident of Creston for nearly 50 years. Previously he practiced at Rittman in Wayne County for six years. The son of a Congregational minister, he was an active church worker, and active also in community affairs. His widow, a daughter, two sons and two sisters survive.

Henry Mitchell DeWerth, M.D., Cleveland; Cleveland-Pulte Medical College, 1906; aged 61; died October 19. Dr. DeWerth practiced in Lakewood until 1920, when he moved to North Olmsted. He was a member of the Masonic Order and the I.O.O.F. Surviving are two daughters and four sons.

Clinton Durham Fife, M.D., Dayton; Western Reserve University School of Medicine, 1921;

aged 45; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Physicians; diplomate of the American Board of Internal Medicine; died October 24. Dr. Fife practiced in Dayton for 18 years, and was a member of the Miami Valley and Good Samaritan Hospital staffs. He was a Mason and a Rotarian. His widow, a son, a daughter, his mother, and two brothers survive.

James Coleman Fisher, M.D., Jefferson; Rush Medical College, University of Chicago, 1889; aged 82; died October 27. Dr. Fisher practiced in Illinois for many years before retiring and locating in Jefferson a few years ago. A daughter survives.

George E. French, M.D., Elyria; Western Reserve University School of Medicine, 1888; aged 76; member of the Ohio State Medical Association and Fellow of the American Medical Association; died October 29. Dr. French, a past president of the Lorain County Medical Society, was health commissioner of Elyria for 37 years, retiring last July. He was a member of the Masonic Order, the Eagles and Elks. His widow, a daughter, a son, a sister and a brother survive.

Lee A. Hays, M.D., Columbus; Eclectic Medical College, Cincinnati, 1910; aged 58; died October 30. Dr. Hays practiced in Columbus for 20 years. During the last World War he served overseas as head of an ambulance train. Dr. Hays was a member of the Baptist Church, the Masonic Order and the American Legion. His widow and his mother survive.

William Armine Humphrey, M.D., Columbus; Hahnemann Medical College and Hospital, Chicago, 1883; aged 80; former member of the Ohio State Medical Association, the American Medical Association and the American College of Surgeons; died October 30. Dr. Humphrey practiced for 50 years, including 19 years in Columbus,

until his retirement in 1933. He first came to Columbus in the fall of 1914 as professor of obstetrics and gynecology in the College of Homeopathic Medicine, continuing in that position until 1928 when he became associated with the student health service. His long medical career started in Saunders, Nebraska. From 1900 to 1914 he was at the Toledo Hospital. Dr. Humphrey was a member of the Masonic Order, Faculty Club and the Presbyterian Church. A son and a stepson survive.

Walter Jay Insley, M.D., Cleveland; Bennett College of Eclectic Medicine and Surgery, Chicago, 1887; aged 83; died October 26. A native of Canada, Dr. Insley retired several years ago after having practiced in Columbus for over 40 years. A daughter survives.

Arthur Burnham Johnson, M.D., Toledo; Rush Medical College, University of Chicago, 1928; aged 43; died October 3. Dr. Johnson had been a member of the staff of the Toledo Women's and Children's Hospital for 10 years. His widow, and his mother survive.

Michael Scott Kearns, M.D., Fort Lauderdale; St. Louis University School of Medicine, 1926; aged 40; former member of the Ohio State Medical Association and the American Medical Association; died November 14. Dr. Kearns retired five years ago because of ill health, after having practiced in Cincinnati for 10 years. He was coroner of Hamilton County from 1930 to 1934. Dr. Kearns was active in athletic circles, having been physician for the Cincinnati Boxing and Wrestling Commission; commissioner of athletics for the Greater Cincinnati High School League; vice-president of the Greater Cincinnati Sunday League and medical examiner for the St. Xavier University football squad. During the last World War he served in the Signal Corps of the U. S. Army. Dr. Kearns was a member of the Knights of Columbus, Ohio Catholic Foresters, Elks and the American Legion. Surviving are his widow, his mother, a son and three brothers.

Walter E. List, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1907; aged 54; member of the Ohio State Medical Association and the American Medical Association; died October 26. Dr. List had been superintendent of Jewish Hospital for ten years. He had previously served six years as assistant at Cincinnati General Hospital and 11 years as superintendent at Minneapolis General Hospital. In 1934 Dr. List was elected a trustee of the American Hospital Association, and he was also governor of the American College of Hospital Administrators, representing Ohio. His widow, a sister and a brother, Dr. William G. List, Cincinnati, survive.

Robert Henry Martin, M.D., Magnetic Springs; McGill University Faculty of Medicine, Mon-

treah, 1896; aged 65; member of the Ohio State Medical Association and the American Medical Association; died October 30. Dr. Martin practiced in Union County for 17 years. His widow, a brother and a sister survive.

Kary Gibbon Parker, M.D., Mansfield; Miami Medical College, Cincinnati, 1903; aged 66; member of the Ohio State Medical Association and the American Medical Association; died October 24. With the exception of five years in southern California, 1924 to 1929, Dr. Parker had spent his entire life in Richland County. For 18 years he was chief surgeon at the Ohio State Reformatory. Surviving are his widow and a sister.

Bruno Joseph Sawicki, M.D., Detroit; Toledo Medical College, 1913; Wayne University College of Medicine, Detroit, 1917; aged 51; died October 11. After practicing several years in Cleveland, Dr. Sawicki served in the last World War as a first lieutenant in the United States Army. Since the war he had practiced in Detroit. Six sisters and a brother, Dr. Alphonse C. Sawicki, Detroit, survive.

Albert S. Stemler, M.D., Washington C. H.; Eclectic Medical College, Cincinnati, 1898; aged 66; member of the Ohio State Medical Association and the American Medical Association; died October 30. Dr. Stemler located in Fayette County in 1900, practicing at Good Hope until 1921, when he moved to Washington C. H. He retired from active practice two years ago. Dr. Stemler was the first health commissioner of Fayette County, holding that position for four years. He had served the Fayette County Medical Society as president, vice-president, delegate and legislative committeeman. Dr. Stemler was a member of the Masonic, Modern Woodmen and Junior Order of American Mechanics lodges. His widow, two daughters and a brother survive.

Arthur Thomas, M.D., Portland, Oregon; Physio-Medical College of Indianapolis, 1895; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died September 14. A native of Minerva, Dr. Thomas practiced in Stark, Carroll and Columbiana counties for 34 years, retiring two years ago. Active in the civic life of Minerva, he had been a member of the Board of Health, health commissioner, member of the Council and the Board of Public Affairs, and president of the Minerva Banking Company. Dr. Thomas served in Cuba during the Spanish-American war. His widow, two daughters and two sons survive.

I. H. Treece, M.D., Mt. Blanchard; Eclectic Medical College, Cincinnati, 1887; aged 79; died October 24. Dr. Treece practiced medicine in Findlay 29 years ago, until ill health necessitated his moving to Montana. During the past few years he has been spending his winters in

Florida and his summers at Mt. Blanchard. Two sisters survive.

Harold Wilson, M.D., Conneaut; Dartmouth Medical School, Hanover, N. H., 1896; aged 66; member of the Ohio State Medical Association and the American Medical Association; died November 5. Dr. Wilson first practiced in Steubenville, but located in Conneaut in 1897. Active in professional and civic affairs in that community for 43 years, he had served as a member of the city council, the board of public service, and president of the Chamber of Commerce. In 1938 Dr. Wilson was appointed chief surgeon for the Pittsburgh Steamship Company. During the last World War he was a captain in the Medical Corps in the 83rd Division, and was attached to a field hospital on the Italian front. Dr. Wilson was a charter member and a past commander of the local American Legion post. He was a member of the Masonic Order and the Congregational-Christian Church. His widow and a daughter survive.

Ward C. Zeller, M.D., Visalia, California; Ohio Medical University, aged 66; member of the California State Medical Association and the American Medical Association; died October 7. Dr. Zeller practiced medicine in St. Paris for several years, later moving to Union City, Indiana, and from there to California. His widow, a daughter, two sons and a brother, Dr. Henry R. Zeller, Akron, survive.

Coming Meetings

American Medical Association, Cleveland, June 2-6, 1941.

American College of Physicians, Boston, April 21-25, 1941.

American Society of Anesthetists, New York, December 12.

American Student Health Association, Ann Arbor, December 27-28.

Radiological Society of North America, Cleveland, Dec. 2-6.

Society of American Bacteriologists, St. Louis, Dec. 27-29.

Southern Surgical Association, Hot Springs, Va., Dec. 10-12.

Western Surgical Association, Topeka, Kan., Dec. 6-7.

Cincinnati—Dr. Herman J. Nimitz, tuberculosis coordinator of the Cincinnati Anti-Tuberculosis League, addressed the Woman's City Club on "The Implications of and Community Responsibility Towards the Fight to Control Tuberculosis."

Annual Sale of Christmas Seals in Ohio Started on November 25

The 34th Annual sale of Christmas Seals began in Ohio on November 25, and will continue through Christmas Day. Sponsored by the Ohio Public Health Association, an affiliate of the National Tuberculosis Association, the purpose of the drive is to raise funds for continuance of the educational campaign against tuberculosis.

Over 100 local organizations will sponsor the sale of the seals in communities throughout the state. Eighty per cent of the receipts are retained by the local organizations for the conduct

CHRISTMAS SEALS



*Help to Protect Your
Home from Tuberculosis*

of local campaigns, with 15 per cent going to the Ohio Public Health Association and 5 per cent to the National Tuberculosis Organization. Receipts in Ohio last year were \$312,652.91, which represented an increase of \$35,536.84 over the previous year. The goal for the 1940 campaign is \$357,000.

In describing this year's seal, Dr. Charles A. Doan, Columbus, president of the Ohio Public Health Association, stated: "The design of the 1940 Christmas Health Seal should emphasize to us the fact that tuberculosis is the foe of youth. Three children lifting up tiny voices in a carol of the season, their cherubic faces expressing so vividly the perennial spirit of youth and joy, make an appealing picture".

Felix Lewis Martini, Los Angeles, designer of this year's seal, is a native of Milan, Italy, and the son of a painter who won many prizes in international exhibitions. He is a newcomer to the ranks of distinguished artists who have lent their talents to designing Christmas seals for 34 years.

Toledo Academy Postgraduate Course Scheduled for December 11-13

The 16th Annual Postgraduate Course of the Academy of Medicine of Toledo and Lucas County will be given Wednesday, Thursday and Friday, December 11-13, in the Academy building, Monroe at Fifteenth, Toledo. It will be conducted by Dr. A. C. Ivy, professor of physiology and pharmacology, Northwestern University Medical School, Chicago.

The course, which is entitled "Physiology Applied" will open at 4 P.M., December 11, with a discussion of some of the physiological changes in pregnancy, physiology of labor, onset and mechanism. At 8:30 P.M., the same day, Dr. Ivy will talk on "The Liver and Biliary Tract".

On December 12, at 10 A.M. there will be a discussion of water balance in health and disease, acidosis and alkalosis. The afternoon session on the 12th, beginning at 4 P.M., will be devoted to the advance of diagnosis and therapeutic interest regarding the alimentary tract and kindred subjects. At 8:30 P.M., Dr. Ivy will lecture on hypertension; effects of various drugs on peripheral circulation and heart failure.

Respiration and pathological conditions associated with it will be considered on the morning of December 13, beginning at 10 o'clock. At 4 o'clock, Dr. Ivy will speak on vitamins in diagnosis and treatment, concluding with a discussion in the evening, beginning at 8:30 o'clock, on interpretations of some of the patient's symptoms.

Dr. Ivy has been on the faculty at Northwestern since 1925. Previously he taught at both the University of Chicago and Loyola University. A graduate of Rush Medical College in 1922, Dr. Ivy also obtained a Ph.D. in science at the University of Chicago in 1918. He has addressed many medical meetings, including the 90th Annual Meeting of the Ohio State Medical Association held at Cleveland in October, 1936.

Registration fee for the postgraduate course is \$5. Additional information can be obtained by writing George W. Cooley, executive secretary, the Academy of Medicine, Monroe at Fifteenth Sts., Toledo.

Third Annual Lower Lecture

The third William E. Lower Lecture of the Academy of Medicine of Cleveland was given by E. A. Doisy, Ph.D., professor of biochemistry, St. Louis University, in the auditorium of the Allen Memorial Medical Library, Friday evening, November 15. His subject was "Vitamin K and Other Anti-Hemorrhagic Compounds". Former lecturers were Dr. O. H. Perry Pepper in 1938 and Dr. George H. Whipple in 1939.

Columbus—Dr. Wayne Brehm, chairman of the Franklin County Council of the American Legion, was grand marshal of the Armistice Day parade.

Association Cooperating With NYA In Health Program at Uhrichsville

At the request of officials of the National Youth Administration in Ohio, the Ohio State Medical Association is cooperating in the formulation and planning of a health education program for 200 boys and girls on the NYA rolls in the Uhrichsville-Dennison area. Initial steps in this project were taken at a meeting in Dennison Thursday, November 14, called by Mr. Glenn Miller, district NYA supervisor, and attended by Dr. Carl A. Wilzbach, of Cincinnati, chairman of the Subcommittee on Public Health Education, and Mr. Richard A. Aszling, director of the Bureau of Public Education.

Dr. Wilzbach discussed personal health and its social and economic importance before a group of 125 of the NYA youths, and later he led a small group in a discussion of their individual health problems. Mr. Miller and Mr. Aszling also outlined a comprehensive program of health education to be carried on in that community as a part of the NYA's courses of instruction, with authoritative medical and health material to be furnished by the Bureau of Public Education.

Meeting on the same day, the Tuscarawas County Medical Society, basing its action on the belief that cooperation with this kind of a group of "tomorrow's citizens" is essential from a health point of view and is very effective public relations, voted to cooperate in any way feasible with the NYA leaders in their health program.

Refresher Courses in Obstetrics

The Department of Obstetrics and Gynecology of the University of Chicago and the Chicago Lying-in Hospital through the cooperation of the Children's Bureau, U. S. Department of Labor and the Illinois State Department of Public Health offers five postgraduate courses of four weeks each between January 6 and June 21. The beginning dates of each are: January 6, February 10, March 17, April 21, and May 26. All the members of the department and all services and units of the institution participate in the instruction. Only a limited number of postgraduate students are accepted for each period. A deposit of \$25 is required, of which \$10 is returned on completion of the course. All communications should be addressed to: Postgraduate Course, 5848 Drexel Avenue, Chicago, Illinois.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

HAMILTON

The following programs were presented by the Academy of Medicine of Cincinnati during November:

November 5—Hospital Night. Program of case reports arranged and presented by the staff of Jewish Hospital in the auditorium of the Nurses' Home of Jewish Hospital. Symposium on Jaundice. "Discussion of Jaundice", Dr. Stanley D. Simon; "Case Report of Catarrhal Jaundice", Dr. Thomas S. Levin; "Discussion", Dr. Louis Sommer; "Laboratory", Dr. Mortimer Herzberg; "Case Report of Carcinoma, Head of Pancreas", Dr. Leo. L. Diamond, Dr. Samuel Brown and Dr. Sander Cohen; "Stone in Common Duct", Dr. Irvin Beren, Dr. L. Howard Schriver and Dr. Philip B. Wasserman.

November 12—"Congestive Heart Failure", Dr. Tinsley Harrison, professor of medicine, Vanderbilt University School of Medicine, Nashville, Tenn. This meeting was held under the auspices of the Heart Council of Cincinnati.

November 19—"Shock: Blood Studies as a Guide to Therapy", Dr. John Scudder, professor of medicine, Columbia University College of Physicians and Surgeons, New York City.

November 26—"Office Gynecology", Dr. J. P. Greenhill, professor of obstetrics and gynecology, Loyola University School of Medicine, Chicago. This meeting was held under the auspices of The Cincinnati Obstetrical Society.—Bulletin.

HIGHLAND

Highland County Medical Society paid tribute to its three oldest members, Wednesday noon, November 6, at a meeting in Hillsboro. The guests of honor were Dr. John A. Mercer, Greenfield, who has practiced for 54 years and Dr. Thomas W. Roberds, Belfast, a veteran of 51 years' practice. Dr. J. Barrett Kleckner, Lynchburg, was also honored at the meeting, although he was unable to attend because of ill health. Dr. J. C. Larkin, Hillsboro, president of the society, presented each of the veterans with a handsome gold plaque. Other speakers included Dr. O. T. Sproull, West Union, secretary of the Adams County Medical Society, who trained under the same preceptor as Dr. Mercer, and Dr. S. J. Ellison, West Union. The meeting was attended by approximately 40 physicians and their wives.

The ladies adjourned after the luncheon to hold an organization meeting at the office of Dr. J. C. Larkin, where they heard an address by Mrs. Henry B. Freiberg, Cincinnati, Director for the First District of the Woman's Auxiliary to the

Ohio State Medical Association. Completing the organization of a Woman's Auxiliary to the Highland County Medical Society, the ladies elected the following officers: Mrs. W. M. Hoyt, president; Mrs. J. C. Larkin, vice-president; Mrs. W. B. Roads, secretary, all of Hillsboro; and Mrs. C. C. Cropper, Lynchburg, treasurer.—News clipping.

BUTLER

A movie on "Intravenous Anesthesia" was shown at a meeting of the Butler County Medical Society, Thursday evening, October 24, at Mercy Hospital, Hamilton. There were 22 members and 4 guests present.—Vera Coombs Iber, M.D., secretary.

WARREN

Dr. N. A. Hamilton, Franklin, was the guest of honor at a testimonial dinner given by the Warren County Medical Society at Franklin, Wednesday evening, November 6. The occasion was the fiftieth anniversary of Dr. Hamilton's entrance into the practice of medicine in Warren County. Dr. James H. Arnold, Lebanon, president of the society, presided at the meeting and gave the welcoming address. Tributes to Dr. Hamilton were also expressed by Dr. E. O. Bauer, Middletown, and Dr. A. D. Harvey, Lebanon, secretary of the society. S. S. Tibbals, a life-long friend of Dr. Hamilton, presented the honored guest with a watch as a token of esteem in which he is held in his community. Dr. Martin H. Fischer, Cincinnati, gave the principal address of the evening, on "The Doctor of Yesterday and Today". The musical program was arranged by Mrs. Louise Rossman, and the committee in charge of the program included Dr. Jean A. Nock and Dr. O. L. Layman, Franklin.—News clipping.

Second District

(COUNCILOR: D. W. HOQUE, M.D., SPRINGFIELD)

DARKE

Dr. Samuel E. Flook, Dayton, spoke on "Low Back Pain", at a dinner meeting of the Darke County Medical Society, Tuesday evening, October 22, at Greenville.—W. D. Bishop, M.D., secretary.

GREENE

An interesting informal lecture on "Asthma" was given by Dr. Jonathan Forman, Columbus, at a meeting of the Greene County Medical Society, Thursday, November 7, at Xenia. Dr. Forman stressed especially the importance of searching very carefully for the offending substances responsible for asthma.—Donald F. Kyle, M.D., secretary.

MIAMI

Dr. R. S. Dinsmore, Cleveland, spoke on "Diseases of the Neck", at a meeting of the Miami

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NEW YORK CITY

County Medical Society, Friday, November 1, at the Studer Hospital, Troy. In addition, a talking motion picture produced by the American Academy of Pediatrics, entitled "When Bobby Goes to School", was shown.—News clipping.

MONTGOMERY

At a meeting of the Montgomery County Medical Society, Friday evening, November 1, at Dayton, Dr. Samuel Iglauer, professor of otolaryngology of the University of Cincinnati College of Medicine, spoke on "Deep Infections of the Neck". The program was under the auspices of the Eye, Ear, Nose and Throat Section.

Dr. Carlo J. Tripoli, professor of medicine, Postgraduate School of Louisiana State University Medical School, New Orleans, spoke on "New Developments in the Treatment of Meningitis", at a meeting of the society, Friday evening, November 15.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: GUY E. NOBLE, M.D., ST. MARYS)

CRAWFORD

Dr. Charles W. Pavey, Columbus, discussed "Sterility" at a meeting of the Crawford County Medical Society, Monday, October 7, at the Elks' Club, Bucyrus, and Dr. Charles L. Baskin, Akron, spoke on "Skin Diseases" at a meeting of the

society in the same place, Monday evening, November 4.—Theo. D. Sawyer, M.D., secretary.

HARDIN

Dr. Jay McClean, Columbus, spoke on "Cancer" at a meeting of the Hardin County Medical Society, Thursday night, October 17, at Kenton.—News clipping.

MARION

Modern methods of treating fractures were discussed by Dr. Edward P. Gillette, Toledo, at a meeting of the Marion Academy of Medicine, Tuesday night, November 5, at Marion City Hospital. A talking film, "When Bobby Goes to School", dealing with examination of pre-school children was shown.—News clipping.

SENECA

Dr. C. L. Barrett, Bellefontaine, a member of the Committee on Medical Service Plans of the Ohio State Medical Association, spoke on "Enabling Legislation", at a meeting of the Seneca County Medical Society, Thursday evening, November 14, at the Shawhan Hotel, Tiffin.—M. H. Aiken, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during November:

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CANNED FOODS IN THE MODERN PATTERN OF NUTRITION

● Generalities as to human nutritive requirements are of but limited use in the practical application of our modern knowledge of nutrition. This is particularly true where expert and experienced advice on diet formulation is not readily or conveniently available. For those concerned with actual diet planning or administration, more specific information on nutrition is desirable.

During recent years, several excellent texts have become available which present reliable guidance in diet planning (1, 2, 3). One important factor governing conformance with any diet pattern, of course, is the economic status of the individual, family, or group. A recent text presents a workable system in which rather full consideration has been given to this factor (1).

Under this pattern, the common foods have been classed according to their nutritive contributions into some 12 groups. These groups include milk; potatoes and sweet potatoes; mature dry legumes and nuts; tomatoes and citrus fruits; leafy green and yellow vegetables; other vegetables and fruits; eggs; lean meat, poultry, and fish; flour and cereals; butter; other fats; and sugar. There will, of course, be quantitative differences in the nutritive values of individual foods within a single group. However, there is sufficient similarity so that the foods within a group can be used interchangeably as conditioned by factors such as availability, relative costs, and personal, racial, or religious preferences. In order to minimize variation of nutritive values obtained from each food group, it has been suggested that as wide a variety of foods within a group, as practical, be consumed.

In connection with this diet plan, desirable yearly food allotments for persons of various sex, age, or conditions of life are also listed in terms of these twelve food

groups. Thus, from information regarding the sex, age, and activities of the members of a family or group, one can compute the yearly amounts of the various foods which should be provided. From the sum of these yearly totals, the food allowances per week or month for the family or group can be estimated. The latitude in the choice of foods, within the twelve specified food groups, makes the diet pattern more adaptable to situations where the economic factor must be considered.

Estimation of food requirements in this manner provides a practical method of diet planning designed to supply the nutritive requirements of an individual, a family, a group, or even a nation. However, the ultimate achievement of an improved nutritional status is dependent upon a readily available supply (at all times) of the various common foods at reasonable cost. It is apparent from the listing of the twelve food groups that many materials of a perishable nature—which are not conducive to year-round production near the centers of large populations—are indispensable in supplying the dietary requirements of our people. Thus, the transportation and storage of foods, in such a manner as to retain nutritive values, are important problems to be considered.

Needless to state, commercially canned foods are well adapted for use in this diet plan. Commercial canneries are located near the sites of abundant supply of freshly harvested foods. The canning processes convert the perishable foods into nutritious canned foods which can be economically transported and marketed throughout the year. Hence, the canning industry plays an important role in the practical aspects of diet planning to improve the nutritional status of the American people.

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REFERENCES

1. 1939. Food and Life; Yearbook of Agriculture, U. S. Dept. of Agriculture, U. S. Govt. Printing Office, Washington, D. C.
2. 1939. Accepted Foods and Their Nutritional Significance, Council on Foods of the American Medical Association, Chicago.
3. 1940. J. A. M. A. 114, 548.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned-foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the sixty-sixth in a series which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

November 1—Seventh Annual Medical Institute of University of Toledo. Speakers: Dr. John S. Lockwood, director of surgical laboratory, department of surgical research, University of Pennsylvania School of Medicine, Philadelphia; Dr. Harrison S. Flippin, instructor in medicine, University of Pennsylvania School of Medicine.

November 8—Joint Meeting with the Toledo Dental Society. "Practical Methods of Controlling the Most Prevalent of all Diseases, Dental Caries, with Diet, Fungicides and Germicides", Milton H. Hanke, Ph.D., research consultant, biochemistry and nutrition.

November 29—Eye, Ear, Nose and Throat Section. "Changing Viewpoints Concerning Deficiencies in Speech", H. A. Weller, M.A., Sc.D.—Bulletin.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following programs were presented by the Academy of Medicine of Cleveland during November.

November 1—Clinical and Pathological Section. "Carcinoma of Prostate", Dr. H. R. Trattner; "Equalizing Leg Lengths", Dr. C. G. Barber; "Tuberculosis Pericarditis with Massive Effusion", Dr. C. S. Stone; "Barbiturate Poisoning. Picrotoxin Treatment", Dr. J. P. Anderson; "Male Factors in Sterility", Dr. L. F. Huffman.

November 8—Experimental Medicine Section. "Problems in the Treatment of the Menopause", Dr. R. L. Faulkner; "The Relative Potency of Injected and Orally Administered Estrins", Dr. L. Isaac, M. E. Collette, Ph.D., F. W. Reed, Ph.D., S. Rouse, Ph.D., and E. Yeakel, Ph.D.; "Physical Changes During Hot Flashes", E. Yeakel, Ph.D., and M. E. Collett, Ph.D.; "Clinical Demonstration of the Synthetic Sterols in Puberty", Dr. G. K. Folger.

November 13—Pediatric Section. "Ectopic Kidney in a Thirteen Month Old Child", Dr. L. E. Liddler; "Cases of Neuro-Muscular Dystrophies Treated with the Newer Vitamins", Dr. M. D. Friedman; "Cyst of the Lung", Dr. I. B. Silber; "Cases of Argogryphosis", Dr. W. G. Stern; "Cirrhosis of the Liver", Dr. J. W. Epstein; "Erythema Multiforme of the Mucous Membranes", Dr. E. E. Smith; "Bilateral Empyema with Pyopericardium", Dr. A. L. Kuhn; "Treatment of Hemangiomas", Dr. A. Strauss; "Treatment of the Shy Child (Pediatric and Psychiatric)", Dr. O. B. Markey; "Tetralogy of Fallot with Cerebral Anomalies, (Autopsy Findings)", Dr. Anna May Young.

November 15—Third Annual Lower Lecture. "Vitamin K and Other Anti-Hemorrhagic Com-

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pounds", E. A. Doisy, Ph.D., professor of biochemistry, St. Louis University.—Bulletin.

GEAUGA

The last regular 1940 meeting of the Geauga County Medical Society was held at the home of Drs. Swan and Hertzog, Chardon, Wednesday, October 23. The society held seven meetings between April and November this year. The speaker at the October meeting was Dr. James C. Wood, Cleveland, who gave a paper on "Reminiscences of a Country Doctor in the 80's in Michigan", where he began his practice.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

Dr. Marion Black, Cleveland, spoke on "Repair of Pelvic Relaxations", at a meeting of the Portage County Medical Society, Thursday evening, November 7, at the home of Dr. S. U. Sivin, Ravenna.—E. J. Widdecombe, M.D., secretary.

MAHONING

Members of the recently organized Woman's Auxiliary to the Mahoning County Medical Society held their first meeting, Monday, October 21, at Butler Art Institute, Youngstown. Mrs. R. M. Morrison is the president.—News clipping.

STARK

Dr. Edward H. Rynearson, Rochester, Minn., spoke on "Diabetes Mellitus and Hyperinsulinism", at a meeting of the Stark County Medical Society, Thursday evening, November 14, at Sue Ming's Restaurant, Canton.—Clair B. King, M.D., secretary.

TRUMBULL

Thirty-two women met at the Hotel Warner, Warren, Thursday, October 10, and organized the Woman's Auxiliary to the Trumbull County Medical Society. Mrs. J. A. Ralston, presided, and Mrs. R. B. Poling, Youngstown, Director for the Sixth District of the Woman's Auxiliary to the Ohio State Medical Association, assisted with the organizing. The following officers were elected: Mrs. W. G. Drown, Warren, president; Mrs. E. R. Westbrook, Newton Falls, president-elect; Mrs. A. F. Compton, Warren, vice-president; Mrs. C. A. Bogue, Warren, secretary; Mrs. E. G. Caskey, Mineral Ridge, treasurer. The Auxiliary will meet on the first Tuesday of each month.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

JEFFERSON

Dr. John A. Toomey, Cleveland, spoke on "Infantile Paralysis" at a meeting of the Jeffer-

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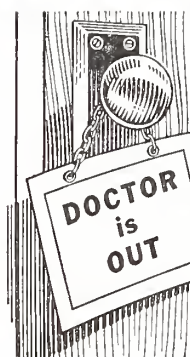
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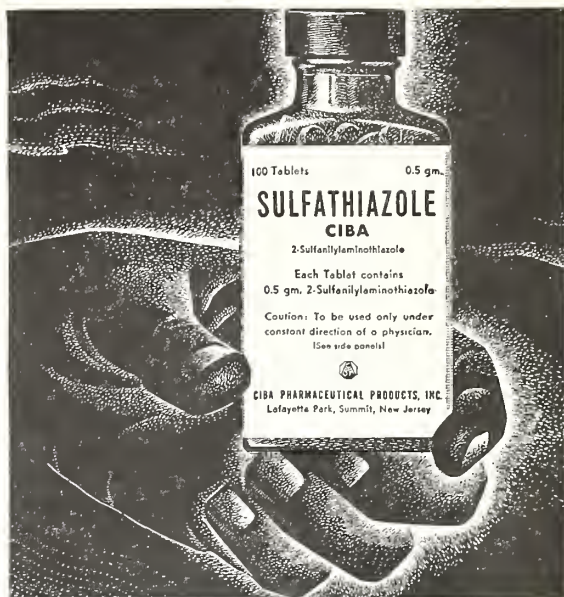
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son County Medical Society, November 5, at the Ohio Valley Hospital, Steubenville.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

LICKING

Twenty-eight members and six guests were present at a meeting of the Licking County Medical Society, Tuesday night, October 29, at Newark. The speaker was Dr. E. Perry McCullagh, Cleveland, who discussed "Endocrine Therapy in Gynecology".—News clipping.

MORGAN

Dr. George F. Swan, Cambridge, spoke on "Fractures of the Arm" at a meeting of the Morgan County Medical Society, Thursday evening, October 17, at the Kennebec Hotel, McConnellsville.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

"Office Management of Common Dermatoses", was the subject discussed by Dr. Frank J. Lackesen, Columbus, at a meeting of the Hempstead

Academy of Medicine, at the Portsmouth General Hospital, Monday evening, November 11.—Sol Asch, M.D., secretary.

Tenth District

(COUNCILOR: C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

A symposium on "Low Back Pain" was presented at a meeting of the Columbus Academy of Medicine, November 18, at the Columbus Gallery of Fine Arts. Dr. Judson D. Wilson spoke on "Injury to Articular Facets"; Dr. Roy J. Secrest, "Herniated Intervertebral Disc", and Dr. Harry E. LeFever, "Hypertrophied Ligamentum Flavum". The Warren-Teed Products Company entertained the Academy with a buffet supper at the close of the scientific program.

Dr. Raymond A. Ramsey spoke on "Some Endocrine Problems in General Practice", at a meeting of the Section in General Medicine, November 25, at Children's Hospital. The discussion was led by Dr. E. H. Baxter, chief-of-staff at the hospital.

Officers of the Woman's Auxiliary to the Columbus Academy of Medicine are: Mrs. Ralph W. Hoffman, president; Mrs. John W. Wilce,

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STUDIES IN THE AVITAMINOSES



This page is the final of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the December 7 issue of The Journal of the American Medical Association.

The Exacerbation of LATENT PELLAGRA by Acute Infections

Vitamin requirements are increased by many factors, especially by acute infectious disease. Field, commenting on this phenomenon, states that the onset of pellagra may coincide with pregnancy, organic gastrointestinal disease, severe and prolonged illnesses, and dietary restriction for therapeutic purposes. The patient whose tongue is shown developed this manifestation of pellagra during the course of lobar pneumonia. After nicotinic acid therapy was started she coughed up a cast of the esophagus which consisted of a grey membrane similar to that covering the tongue. The pellagrous symptoms responded promptly to treatment.

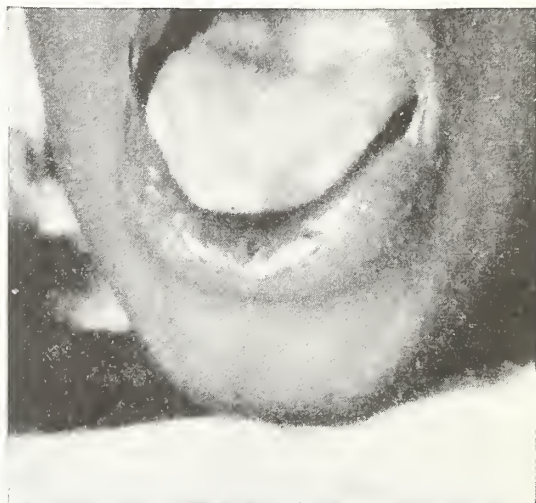


Illustration courtesy of Virgil P. W. Sydenstricker, M.D.,
University of Georgia Medical School, Augusta, Ga.

The Coexistence of Vitamin Deficiency States

Many authors have recently presented evidence that vitamin deficiency states often are multiple. Strauss has called attention to the fact that deficiency disease in man, unlike that experimentally produced in animals, is rarely limited to a single factor. The patient whose hands are shown had partaken of a markedly deficient diet for several months. As a result, scurvy and pellagra developed concurrently. The ecchymoses of the former and the dermatitis of the latter are clearly visible. Specific therapy together with dietary adjustment led to prompt remission of these signs.



Illustration courtesy of Virgil P. W. Sydenstricker, M.D.,
University of Georgia Medical School, Augusta, Ga.



vice-president; Mrs. Herbert D. Emswiler, treasurer; Mrs. Oscar W. Jepson, Canal Winchester, corresponding secretary; Mrs. H. M. Clodfelter, recording secretary, and Mrs. Phillip T. Kneis, organization chairman. The Academy's advisory committee to the Auxiliary consists of Dr. John B. Alcorn, Dr. Charles W. Pavey and Dr. D. J. Alspaugh.—Bulletin.

KNOX

The Woman's Auxiliary to the Knox County Medical Society held its second meeting, Wednesday evening, November 6, in the home of Mrs. George B. Imhoff, Mt. Vernon, with Mrs. John L. Baube and Mrs. Charles B. Tramont, as co-hostesses. The following officers were elected: Mrs. Julius Shamansky, president; Mrs. James F. Lee, president-elect; Mrs. J. M. Pumphrey, vice-president; Mrs. John R. Claypool, secretary-treasurer. The board of directors appointed a program committee composed of Mrs. Robert L. Eastman, Mrs. Robert H. Hoecker, and Mrs. Henry Brown. Mrs. O. W. Rapp was named historian and Mrs. Tramont, publicity chairman. The next meeting, December 4, will be held at the home of Mrs. Lee, with Mrs. I. S. Workman and Mrs. Mary Dowds, as assistant hostesses.—News clipping.

MORROW

Richard A. Aszling, Director of the Bureau of Public Education of the Ohio State Medical Association, explained the activities of his bureau at a dinner meeting of the Morrow County Medical Society, with local dentists as guests, at Mt. Gilead, Tuesday evening, November 12.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

At a meeting of the Ashland County Medical Society, Friday evening, November 15, at the Ashland Country Club, Dr. Robert R. Crawford, Mansfield, spoke on "The Care of Fractures".—H. Wayne Smith, M.D., secretary.

LORAIN

Dr. Harold Feil, Cleveland, spoke on "Cardiac Emergencies and Their Treatment" at a meeting

of the Lorain County Medical Society, Tuesday, November 12, at the Methodist Church, Elyria.

The Woman's Auxiliary was organized at this meeting, with the following officers: Mrs. S. J. Birkbeck, Elyria, president; Mrs. F. R. Dew, Oberlin, president-elect; Mrs. C. H. Frederick, Lorain, secretary, and Mrs. L. H. Trufant, Oberlin, treasurer. The Advisory Committee to the Auxiliary is composed of Dr. Taylor Smith, Avon, chairman; Dr. G. A. Hoke, Elyria, and Dr. T. A. Peebles, Lorain.—I. L. Levin, M.D., secretary.

Seek Medical and Surgical Supplies for Physicians in China and England

Two separate requests for medical supplies and used equipment for the use of physicians in war-torn Europe and Asia have been made of the medical profession in the United States.

Dr. S. H. Liljestrand, medical missionary of the Methodist Church in Chengtu, West China (along the Burma Road) has issued an appeal for used surgical equipment and medical periodicals to replace apparatus and magazines destroyed in August when the Women's Hospital, connected with the West China Union University, Chengtu, was completely razed in a fire which followed a Japanese air-raid. Included in the losses were a diathermy machine; an ultra-violet lamp, large size; three adult-size cystoscopes; one infant's and one children's cystoscope galvanic electric apparatus. Physicians interested in assisting Dr. Liljestrand with used or good conditioned material should address the Medical Department, Board of Foreign Missions, 150 Fifth Avenue, New York City.

A similar appeal for medical and surgical supplies for the medical profession of Great Britain has been issued by the Medical and Surgical Supply Committee of America, with offices at 420 Lexington Avenue, New York City. The following Ohio physicians have been named by this committee as its Ohio representatives: Dr. J. H. J. Upham, Columbus; Dr. George Crile, Cleveland; Dr. Leon Schiff and Dr. J. Louis Ransohoff, Cincinnati. Physicians having supplies which might have utility value should ship them direct to the committee at the New York address.

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The Physician's Bookshelf

Dr. Colwell's Daily Log for Physicians (*Colwell Publishing Co., Champaign, Ill.*), comes again for 1941 with all of its simplified technique for handling efficiently the disagreeable job of keeping a financial record of a practice. It has proven itself and if you are not familiar with the details of its operation, I would advise that you investigate this before the first of the year.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1939 with the Comments That Have Appeared in *The Journal*. Cloth. Price, \$1. Pp. 205, with five illustrations. Chicago: American Medical Association, 1940.

Only seven of the thirty-five reports listed in this annual collected report are of the familiar "Not Acceptable" or condemnatory type. Two reports announce omission of products from N.N.R., one being off the market. The remainder, far superior in bulk as well as in number, are concerned with educational and constructive considerations. This trend has been noticeable in recent years; it reflects the great predominance of the constructive over what may be called the destructive side of the Council's work of promoting rational therapeutics.

Asthma, by Frank Coke, F.R.C.S. (2nd Edition, *Wm. Wood Company, Baltimore*; \$4.00), is a very individualistic monograph with certain concepts not generally accepted. There, however, is much of worth in the book which will prove of help to the physician.

A Manual for Diabetic Patients, by W. D. Sansum, M.D., A. E. Koehler, M.D., and Ruth Bowden, B.S. (*Macmillan Company, New York*; \$3.25), presents the adequate carbohydrate diets for the use of the diabetic patients, together with the necessary facts about their disease.

The Electrocardiogram and X-ray Configuration of the Heart, by Arthur M. Masters (*Lea & Febiger, Philadelphia*; \$6.50), emphasizes that size, shape, and position of the heart is fundamental in the interpretation of its electrocardiogram. This is an atlas which should be in the library of every physician who undertakes these interpretations.

Chronic Disease, by Ernest P. Boas, M.D., chairman, Committee on Chronic Illness, Welfare Council, City of New York (*J. J. Augustin, Inc., New York*; \$2.00), emphasizes the social import of chronic disease. So many of whom, when stricken with a chronic disease, can only afford to die—they cannot afford to live. It is with this thought and many of its implications that this book deals. In these days of a changing social order, all of us physicians must read such careful surveys as this.

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CHICAGO, ILL., U. S. A.

News Notes

Akron—Speakers at the annual institute of District No. 1 of the Ohio State Nurses' Association included Dr. J. A. Carnes, Massillon; Dr. Henry C. Schumacher, Cleveland; Dr. Walter A. Hoyt and Dr. Noah Miller, Akron.

Caledonia—An order of the War Department calling Dr. M. F. Axthelm to military service was deferred indefinitely when officials in the community protested that Dr. Axthelm was the only doctor serving its 743 residents.

Cleveland—New members of the executive board of the American Public Health Association include Dr. James A. Doull, professor of hygiene and public health, Western Reserve University School of Medicine, Cleveland.

Columbus—Dr. Ruth H. St. John is the new president of the Women's Medical Club. Other officers are: Dr. Ruth A. Koons, vice-president and Dr. Pauline P. Rossel, secretary.

Conneaut—Dr. J. Frank Docherty has been appointed surgeon for the Pittsburgh and Conneaut Dock Company, the Pittsburgh Steamship Company and the Nickel Plate Railroad, succeeding the late Dr. Harold W. Wilson.

Hamilton—City Health conditions were discussed by Dr. George G. Flenner at a meeting of the Roosevelt Junior High P.T.A.

Lorain—Dr. Leonard A. Stack is the new president of the Lorain Philharmonic Society.

Marion—Dr. Thomas H. Sutherland attended the recent annual meeting of the Aero Medical Association at Memphis, Tenn.

Ohio City—Dr. L. N. Irvin has been appointed to the Van Wert County Board of Health to fill the unexpired term of the late Dr. W. J. Reuter.

Oxford—Dr. Wm. C. Beck has been appointed associate physician in the Student Health Service of Miami University.

Ravenna—The work of the public health department of Portage County was described by Dr. P. L. Harris, county health commissioner, at a meeting of the Junior League.

Shreve—Dr. Wm. B. Wild has been appointed assistant city health commissioner at Mansfield.

Toledo—Dr. Clarence D. Selby, medical consultant for the General Motors Corporation and former president of the Ohio State Medical Association has been appointed chairman of the subcommittee on industrial medicine of the Medical and Health Committee of the Council on National Defense.

Waynesville—Dr. Mary L. Cook was severely injured in an automobile accident near Chillicothe recently.

Wooster—Dr. L. A. Adair lectured on "Diabetes" at a meeting of the Wayne County Registered Nurses' Club.

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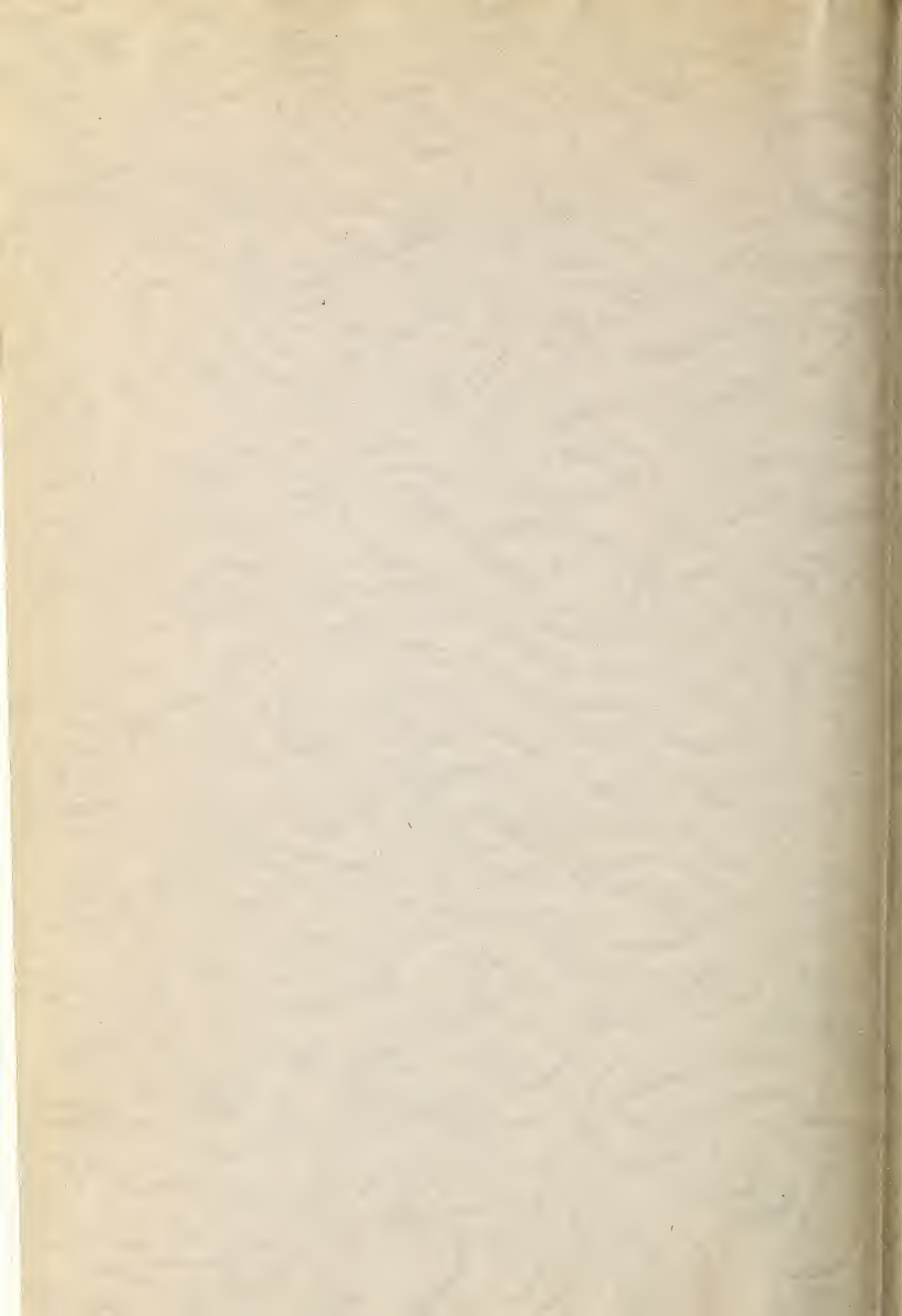
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